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EDUCATIONAL PROBLEMS

VOLUME II

EDUCATIONAL PROBLEMS

BY

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CHAPTER IX

THE BUDDING GIRL

The dressmaker or milliner age—Changes in appetite—Interest in the other sex—Love of secrets—Affectations—Imitation—Dramatic gifts—Thoughts of death—Glad she is a girl—Studies seem shopworn and are far outside the center of her interests—Why and how she likes her studies—The unreligious age—Reasons for teaching sex early—Degenerate young girls—Those at the bottom of the social and moral scale—Advantages of knowledge of the way of life properly obtained—Periodic withdrawal—Minor abnormalities coming at this age.

"*Backfisch*" is a colloquial German term for a girl in the very earliest teens, and I use it here because I know of none in English or any other language so expressive, and because the age is as unique as the name. It is better than the French "*tendron*" or the English "bud." It means a fresh fish, just caught but unbaked, though fit and ready for the process. The naïveté of instinctive, unconscious childhood, like the glinting sheen of sea hues, is still upon the *Backfisch*. Save for a little mechanical drill and breaking into a few of the most rudimentary conventionalities, of learning and conduct, her real nature is wild with a charming, gamey flavor. She is unspoiled by any of the recipes given in the cook books of pedagogy and society, for making human nature more appetizing to their highly artificial tastes. Girls with hair demurely braided down their backs, and skirts just beginning to lengthen toward their ankles are buds that should not blossom for some time, but should be kept as long as possible in the green stage; or, to change from a floral to a faunal trope, they are only squabs and not yet doves, maturing pupæ and not yet butterflies, and this calf or filly stage should be prolonged by every artifice. She is no longer a little girl, but by no means yet a young woman, nor is she a cross between or a mixture of the two, but a something quite unique and apart, because this is a stage not at all explained by anything in the pedigree of the race, which the history of the individual otherwise tends to repeat. Even among those primitive races where girls are not wed at pubescence, there never was a *Backfisch* stage. That is one reason why she is now the most intricate and baffling problem perhaps that science has ever yet attacked, but a number of special studies have yielded some results. Let us glance at them.

1. Statistics show that near the dawn of the teens, about half the girls pass through a period when they would like above all things to be and plan to become *dressmakers* or *milliners*. This is partly because there is a new clothes consciousness. They have distinct, if often rather loud, tastes and wish to attract attention, and so deck themselves out in attire often a trifle striking or fetching. Among insects, birds, and animals, it is the male that puts on beautiful array when the love season dawns; but with man, it is the female. This is the season of bangs, curls, puffs, pompadours, frills, ribbons, possibly rouges and powders, high heels, flaunting hats, sunshades, ornamental purses, bangles, very long gloves—fashions that fairly smite the beholder; that is to say, such things now loom up into the center of consciousness. The shop windows are a dream, and even openings and mark-down sales begin to work their charm. How her self-consciousness tingles to the tip of every ribbon, skirt, or toppling, wavering headgear! How she loves to try on things and exchange articles of dress and adornment with her mates! To be sure, nothing fits ideally, for she is growing very fast and is ungainly in her very form, and her movements are a little awkward and ill adapted to her dress. Her sense of harmony is not developed, and she thinks herself best dressed when she has on each newest and most stylish thing, and is happy with another girl as gaudy, provided only she is not outshone. How horrid to all good taste are her first frizzes, and how heavy the first bracelets and other jewelry she sometimes affects! How sharp the contrasts between her own swagger, nascent tastes and those of her sager mother, and how prone she is to wear the newest and best on all occasions, and how dull and even repulsive every new garment makes all the older

ones seem! How little a sense of fitness of place, occasion, time of day, season, or weather! She has not yet a sense of adaptation to her figure, size, complexion, but everything that is beautiful in itself is beautiful on her. She has favorite colors, but has little discrimination for degrees or shades of the same color.

2. Her *appetite* changes and is full of whims, freaks, and niftiness. Breakfast is worst and most slighted. She sips and samples, is voracious for pickles, bonbons, ices, dotes on new flavors in soda water, and if she has access to perfumes, loads the air with them. Lovely colors and even forms in confectionery (as seen in the smart gimcrackery of the fancy cook, with all the insubstantial dainties that appeal to the feminine appetite) greatly improve their taste. What recks she of digestion or dyspepsia, for even the relations between dietetics and complexion do not yet interest her, save in the case of edibles that may make her red or pale. Even fatness or leanness, if they make any appeal as dietary motives, seem rather a far cry. Here, too, there is often perpetual strife with her mother. Plain soups, cereals, bread, fish, vegetables, and meat irk her and she presses on to dessert as the last, illuminating chapter of a dull novel. Milk is childish, and she prefers something hot like adults. She is very commonly too excited to feed well on plain, nutritive viands or to take time enough to eat. Only on unusually dull, rainy days does she have leisure enough to take her meals with due deliberation. Regularity in eating is harder yet. Late rising or the hurry of school time or other things upon her mind distract, and she can steal from the kitchen or wheedle the cook, or share other girls' goodies on the way, or even enjoy the luxury of being treated at some refreshment counter; and so the nutritive rhythm of a normal appetite, which, if unspoiled, points like the needle to the pole to what the system needs, is disturbed. Thus at the most critical stage of her development she suffers, unbeknown to herself or to others, some subtle forms of arrest.

3. The *other sex* as such now dawns upon her horizon. A year or two ago boys were just playmates, often too rough, teasing, and perhaps generally horrid; and in the affairs of older gentlemen and young men she had no part or lot. If

they touched her life, it was only as and because they were good and kind or bad and disagreeable to her. But now individual young people of the male sex begin to stand out from the mass, and she gradually begins to practice the great selective function of women in comparing and judging, approving and disapproving. It is the age of love fetishes, too; girls notice and become sensitive to boys' eyes, hair, stature, size, feet, complexion, teeth, neck, hands, voice, smile, laugh, carriage, mode of walking, toilet, etc.; while, conversely, certain types of feature, acts, mannerisms, tastes are abhorred. On such bases, individuals possessing most of the charms and least of the aversions begin to loom up before all others, and become the cynosure of attentions, thoughts, and interests. These first, crude, calf loves are often strangely unconscious. The thought and talk of the girl at this culture stage may be all of *him, his,* and *he,* and all her reveries and dreams may center about one, and her preferences stand forth clear as day to all who know the girl, while she thinks the whole matter is her own securely guarded secret. Should *he* show any inclination or make any advances, especially if in the presence of others, he will be rebuffed or frozen as presuming, and all the more decidedly because his admiration would fill her with sudden panic lest she might have inadvertently betrayed her liking and so seemed to invite or encourage him. Should some reckless young blade be so bold as to snatch an innocent kiss, his reward would be a slap, and then there would be thrills of rapture and hours of anguish in solitude afterwards, and her conduct toward him henceforth will be an alternation between snubs, more acted than spoken, and subtle invitations. All the *Backfisch* does may be directly calculated to provoke proposals, but it is at the same time so unconscious that if anything approaching a tender declaration came, she would draw back frightened lest she had betrayed her heart; and rather than do this, she would prefer to die on the spot.

4. The pubescent girl has a passion for *secrets.* In her physiological and affectional life she has much to conceal, and early distinguishes between what all her acquaintances, what the nearest few, and what she alone may know. The latter tends to split off from her social personality and lapse to a

more or less unconscious life of its own. This is the esoteric life or inmost shrine of her individuality and contains some of the most primitive instincts of her sex, and often is the all-dominant influence of her life, though all unknown to her more superficial, social self-consciousness which is occupied with the interests of daily life—education, purposive conduct, occupations—and reveals itself in her conversation. The two lives may be entire strangers to each other, although the upper self is more likely never to suspect the existence of the lower. The latter, for instance, often falls in love long before the former has any inkling of it; and when it does so, then a crisis arises. What the deeper ego does is often denied point-blank by the conscious self, and with perfect honesty and sincerity, for it is indeed an alien constellation of psychic elements. The woman to-day does not understand the *tendron, Backfisch,* slip, or bud, and so she has a harder time than ever before in history. In our homes she lolls, dreams, reverizes, listens to everything, samples many sorts of reading, is silent with adults, voluble with her mates, is taking her first real look at the other sex, and is baffled and puzzled by almost all the problems about herself. The *tendron* has been so much and so long deceived that she is uncertain whether she can trust any adult, and perhaps fancies that there is an actual conspiracy to deceive her. Everyone about her has secrets, and so she instinctively retaliates by inventing secrets, many of them new every day and old every night, with her cronies. She wears badges, mystic letters, and symbols known only to her inner circle and delightfully baffling to all outsiders. Thus she is avenged; she, too, has something esoteric and confidential, for this is the very best basis of her own friendships. Some time the defenses she is now acquiring practice in erecting may come to have grave matters hidden behind them. Secrets are, of course, the vital breath and native air of all clubs for girls at this age, a fact which those who organize them sometimes forget. This tendency is almost as old as the nest-building or home-making instinct, and probably is genetically akin to it. She is an adept, too, in making promises to keep secrets, which she always does after she has told them to a few of her mates, enlisting them to help her keep everything dark. When she vows she will never tell and crosses her heart, she means it. But are not her nearest and dearest chums parts of her very self? And it would be disloyal not to report to them everything she knows, so that they may combine their efforts to prevent anything from leaking out to others. If she is very conscientious, she absolves her vow not to tell by writing or gesturing out the truth, which is to her a very literal thing, the letter of which she knows far better than the spirit. What past mistresses of lying and deception, simulation and dissimulation, girls of thirteen can be I have already shown in Chapter VI. The inmost soul of woman has until lately been one of the best guarded of all the secrets of the universe, and has always attracted but always baffled man. It is the mystic *ewig Weibliche,* and of it woman has ever known yet less than man. Only lately and in some of its more or less morbid manifestations has the great secret just begun to reveal itself, and experts are beginning to realize its power over joy and sorrow, health and disease, and even life and death. Thus woman who was once thought soulless now comes nearer to having two souls than does man.

It is in the *Backfisch* stage that this bifurcation takes place, and the student who collects copious questionnaire data from many sources can now very roughly and very provisionally describe the process. Pubescence lasts longer, is more unsettling, if it be not indeed a more prolonged epoch, in the life of the girl than in the boy. She is a more generic being and a better expression of the race, as actually nearer to it. With the new opportunities now opened to her sex, her future is felt to be more uncertain than ever before, since many independent careers beckon. She may be a star upon the stage, or enter the world of art, letters, music, engage in a profession, in business, or enter a public career. The *Backfisch* has always fancied she might marry a prince, a pauper, or even a sot. Thus the question is wide open what she shall do or be. To a man, wedlock is an incident, but for woman it is destiny. All these possibilities invite and the bud lingers where all these ways focus and cross and glances out along many of them in turn; never were there so many of them and never were most of them quite so alluring. It is rarely hers to choose, but circumstances must decide, and she can, at least for a season, wait. Meanwhile she also feels inner inclinations, probably many, one after another; thus everything within and without tends to keep her plastic and she must remain adaptable to a wide range of eventualities.

5. Meanwhile, the nakedness of her newborn womanhood must be clothed with conventionalities and draped with culture, and so it is at this stage that *affectations* reach the very top of their curve of growth. She is vulnerable to scores of fads, and so imitative that everything in her environment affects her and is registered on her body or soul. Imitation and suggestibility in girls appear to have two climaxes: one for gregariousness and solidarity with their mates, which culminates first; and another for following copy set by older adult women as maturity comes to have interest and meaning. For the bud, mates and adults are both influential as models; but the former, although declining before the latter, are more potent. Several studies have shown how bookmarks, modes of personal adornment, accents, the very gait of those she adores, tastes in even intellectual things, religious activities, social zests, may infect her, and thus contagions of many kinds may spread rapidly through an entire city. M. H. Small[1] collected no less than 687 fads from 536 schools. Some popular girl or a few of them together by prearrangement come to school some morning and set new fashions—e. g., in wearing the hair in one or two braids, psyche knots, parted at the side, bangs, spit and other curls, Marguerite braids, Mrs. Browning's style of low folds over the ear, or with ribbons, puffs, rats, etc., all of which fashions spread like wildfire through a class, school, or even town. There are also necklace fads, souvenir rings, memory circlets, strung shells or beads, rings on either hand or finger or even on the thumb, friendship pins, Brownie and Trilby hats, stickpins of tennis rackets, fraternity emblems, bows worn right, left, low, high, on arms or even shoes, with different colors perhaps for different days on pencils. There are pins, crochet work, fan edges, zephyr caps, lamp mats, chains of various forms and material, fads for special flowers, such as goldenrod, dandelion, sweet pea, clover, lilac, and many others, various tokens, earrings, bracelets, aprons, albums, souvenir

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[1] The Suggestibility of Children. Ped. Sem., Dec., 1896, vol. 4, pp. 176–220.

cards, tiny flags; while many secrets, sometimes with mystery badges exchanged often overnight and producing the impression on the beholder of recondite meanings hidden behind them, are described. A beloved teacher is imitated and an unpopular one mimicked and her inflection, smile, mode of sitting, automatisms, poise of head, mode of using handkerchief, fan or parasol, handwriting, gait, and sometimes her limp, stutter, squint, are registered and even repeated sometimes almost unconsciously. Buds also come to love or hate their grammar, arithmetic, botany, geography, Latin, German, gymnastics, music, according as the teacher of these subjects is liked or disliked, and as she is interested in their branches or not. Enthusiasm and aversion are thus contagious and spread as by infection from the teacher's personality, so that a new teacher brings a transvaluation of zests in the topics of the curriculum, although the interests of the nearest and dearest mates and cronies are still usually even more dominant. Thus girls tend to think, feel, and act in squads and merge their individuality in that of the group of which they are members. They act collectively and are limp and inert alone; they know what others know; yet each is anxious for leadership within a more or less restricted sphere, so that individuality also grows apace under all this social incubation, and each slowly evolves opinions, viewlets, and tastes all her own, but never entirely so till others adopt or ape them. Her originality must be accepted by others in order to seem real to herself; and only when stamped with some collective sanction is she quite sure of what she has and is in the field of culture. Thus the constancy and multitudinousness of her companionship which rarely leave her alone in our urban and bepedagogued life absorb the energy of her soul, which is so incessantly occupied with things without, that she loses acquaintance with her inner self which can only be learned if there is a little real solitude. Excessive social intercourse at this age hastens and multiplies affectations, which become habits prematurely. Thus the modern urban girl in the very early teens knows very many persons and things, but is phenomenally lacking in self-knowledge, and this makes both directly and indirectly for further dualization of soul. If, then, there is any trace of morbidity or any propensity toward any of the many symptom groups now called "hysterical" in the new larger sense of that term, they are almost certain to be magnified under the conditions of modern life. Thus girls, who have peculiar need of self-knowledge of their sex and themselves and at just the nascent period which nature has provided for the acquisition of that knowledge, now escape it. Hence it comes that there was never such dissociation and disintegration of soul before possible as that to which young women are now exposed.

6. One recent discovery is *how well pubescent girls can sometimes act*—e. g., in children's theaters, secondary schools, etc. This is because their nature is now so nebulous and unformed that they can act out any character they can sympathize with. Thus they sometimes acquire quite a repertory of parts, because so imperfectly equipped with habits, prejudices, or even principles themselves. With such abandon do they sometimes throw themselves into a part that it may come to influence their daily life and may even be the mold in which their new character is cast. Yet it is a trait of this age that nearly all the elements of a group of characteristics, when they are just beginning to set, may be very easily moulted and a very different group of them put on in their place. Hence a large and varied repertory of good parts is needed for due orientation. The *Backfisch* borrows all her convictions from her dearest friends, and is ready to supply those she has or even ready to enforce them upon others that she can influence. She scorns consistency, and this is well, for thus the sutures of her thought plexus are kept from closing prematurely and her brain from rigidifying. Thus she can often enjoy the exercise of her womanly prerogative of incessantly revising and reconstructing her views, of moulting old ideas and sprouting new ones of very different hue and composition. I know a girl barely fourteen who twice in one holiday vowed never again to speak to a playmate and told her so; and twice made it all up again. "But," I said, "you told me at lunch that she was the meanest girl that ever lived, that it would be filthy and demeaning ever to have anything to do with her again." "Oh, well," she answered, "I suppose I did use a little hot talk, but Rosalind is really, after all, at heart about the best and most lovely girl I ever knew."

She had hardly any consciousness of contradiction. Thus, the bud insists upon asserting her right to as many diverse personalities as she can use. A young man who said to his best girl that she was so many sorts of a girl that anyone who married her would be a polygamist, was surprised to find how pleased she was at his compliment.

7. The *Backfisch* has just made the real acquaintance with the thought of her own *death*. In a fitting way she thinks of it often, but not long at a time. If any serious disappointment or grief befalls her, the death thought occurs as a possible recourse. She never dreams that death may be the end of all, for her soul would always be hovering about and looking on. She can see herself plainly, lying cold, pure, white in her tasteful shroud and elegant coffin, and her relatives weeping about, and especially those who had done her wrong cruelly punished by the realization that their unkindness drove her to leap into the dark water, for these reverie suicides usually go to heaven by water. When her friends stood about her bier or laid their beautiful, fragrant wreaths upon her grave, then they would realize that they had not understood her or loved or indulged her half enough. Thus on the background of their grief the beauty of her soul, if not of her body, would be appreciated. If there were a lover, how briny would be his tears and how inconsolable his woe, and how sweet and satisfying with " a peace that passeth understanding " would it all be to her soul looking down from above! In fact, though she may often wish she were dead, the instinct of life is too strong and the means of self-destruction that are at hand would be likely to leave her corpse disfigured and mar its beauty, and so she only coquettes with death in dreamy reverie, while at no age of life is the struggle to survive or the will to live quite so strong.

8. Never again will she be quite so *glad she is a girl*. Boys are a bit stupid. Now for a year or two only in all her life is she a little taller than boys of the same age, but her intellect is brighter and far more developed and mature. Boys are coarse, oafish, have strange tastes and ways. Just blossoming into beauty, enjoying for the first time that most exhilarating experience of being taken for a young lady by those who do not know her well, the first whiff of an atmos-

phere charged with incense, adulation, and admiration is often ravishing. Perhaps she is really destined to become a superior being, queening it through the world and ruling it by a wish or even a whim. When receiving the first homage of the other sex, often, too, her parents begin to regard and treat her in a new way. How she now treasures every sweet thing she hears anyone say that any other ever said about her! And how some admirers do long to be her very slave! How graciously she would accept or how haughtily she would spurn each proffered favor or suitor! Perhaps those least likely to receive such homage or to be wooed by rivals dream most of it, and so fancy supplies what fact denies. Possibly some splendid, golden youth may be now sailing over the sea to woo and carry her off to his castle. Such things have happened, and outside fairyland. It is barely possible that some fascinating young stranger who has just crossed her path may be a hero in disguise, for that, too, has happened, and, besides, is not fact stranger than fiction? Does not every lover kneel, worship, bring gifts, and live to make his idol happy? She knows little of suffering, and so cannot be very pitiful, so that the evils and misfortunes of the world rest lightly upon her soul. Thus life is ecstatically and ravishingly joyous, for womankind is now enthroned in her paradise.

9. What does the *Backfisch* care in her heart of hearts about the *shopworn school studies* for their own sake? She accepts them with more or less equanimity, somewhat as a necessary evil, but if she is normal, she does not put her whole soul into them. "When I get mad and want to swear," said one, "I say 'Decimal fractions!' for that is the dreadfullest thing I know." "Latin," she confided to me, "seems such a funny old jabber. The idea of calling 'water' '*aqua*' and all the rest. But I suppose those poor old Latins got used to it." "There is just one thing I can draw well," said another, "and I have drawn hundreds of them, and that is a Merry Widow hat. When I showed the loveliest one I ever did to my drawing teacher, she said, 'Now I see why you draw the figures in the course so poorly,' and she gave me a black mark. She is just disgusting." "We had half an hour to-day to get our English lesson over again," said another, "and Molly passed me six notes all about her new suit

and her grandfather's auto and rides and her other things, and said nasty things about my freckles and Harold, and instead of answering the last, I tore it up in her face. The teacher caught me and I had to stay twenty minutes after school and write something about 'The Cotter's Saturday Night.' Such rubbish." "Yes, history is not so bad," said another of my little confidants, "and the Revolution was great, but I never cared very much about it until I read Tilton's story 'My Lady Laughter,' and then I understood all about it. Some of the young English red-coat officers, especially Carlton, were elegant, but Brandon was fine, too, and I am patriotic enough to be glad he got Constance, although I am afraid I should have taken Carlton. He is more like what Johnny S. will be when he is as old, and he is the finest boy in the class." Another *Backfisch* remarked: "I was the only one that got all the answers right in algebra to-day. Ralph S. had one mistake. I used to hate algebra, but one day the teacher praised something I did and said I could beat Ralph, who is just five months older than I and began a whole term before, so I just went at the stuff, and now I really love it. But I have had about enough, and next term I am going to try German to see what it is like. They say it is as easy as anything we can take; some of the nice boys in school are going to take it, too. It sounds sputtery, and they say it isn't half as elegant as French, but I'll show Ralph that he isn't 'the only pebble on the beach.'" "Why," said a fourteen-year-old bud, "do they always make you learn so much about love; in Latin, it's *amo;* in French, it's *j'aime;* in German, it's *ich liebe,* etc. Haven't those folks anything to do but make love? They, we, you, he, and she always say they did love, they are going to love, or they might love, or they might have loved. I suppose they thought this last was rather sad, but I don't know anything about it and I don't ever want to. If anyone ever wanted to talk about love to me, they had better speak English. I should want to understand them. There could be no possible harm in that, could there? Of course, if a French prince should come over and make love to me as he did to A. G., it would be nice to understand him. Then I would say, '*Non, pas du tout, monsieur,*' and that would settle *him*, and he would deserve it."

I lately held some converse with a charming miss of fifteen about biology, which she had studied about a year and a half in the high school. Although I had known her pretty well for years, she was strangely skittish and reticent, and it required all my art to get her to talking freely and fully upon this subject. I at length realized that this was partly because she did not deem it the most delicate of topics for conversation. I can only reproduce with fidelity the substance and a few phrases of her talk. She took the subject because several of her girl friends did, and because the teacher was a very pleasant young man just from a college that she knew something about, and because there were to be excursions. Each pupil had an elegant green-and-yellow tin case, suspended by a broad, new tan-colored strap over one shoulder. Into it they put every angleworm, snail, tadpole, caterpillar they found, and sometimes scooped up dirty slime from the ditches. The teacher had a net and caught all sorts of butterflies, bugs, and beetles, and tried to make the girls handle toads and a tiny little striped snake. Ugh! Then in school, they had jolly times, too, making little aquaria out of tin, glass, and putty. In class the teacher would tell them about all these things and draw them elegantly with colored crayons on the board. "We all copy the pictures and the long, senseless names," when there are far prettier English ones. "Then he would get hens' eggs (I suppose the grocer gave them to him because they were bad), and describe how the tiny little chicks grew in the egg, horrid, misshapen things! He had a box he kept just so warm so they would hatch to save the hen trouble. Once we saw one crack the shell open with its bill and tumble out. Poor thing, he looked so scared and wet and awkward, and fell over everything because he was blind. I suppose the dear little beastie thought the world was a pretty tough place at first. We learned a lot of curious things about frogs, mice, birds, and pests that get on to trees and bushes. Once he showed us the insides of a dead cat. I wonder where he got it, and how it came to die and whose cat it was! He showed us the heart, the lungs, the stomach, the brain and things, and later the horrid skeleton. He said it came out of the same cat, although we could hardly believe it. We always had to write down a lot of names of parts and all about mollusks, jellyfishes, and other fishes, and their scales and side lines and parts. Sometimes he would tell us something about big things, and these interested the boys most—elephants, tigers, lions, wolves, monsters that died long ago and hardened into rocks. Then he would show us the wings and toes of flies, and the eyes of spiders, and tiny pieces of lean meat, which is muscle, in an elegant microscope. But the botany was far more interesting and cleaner. Now you get your tin box full of things you know won't jump out on you if the lid gets just the least bit loose, and you don't have to always wash your hands, and can keep your dress clean. I analyzed forty flowers and wrote out the real names in a good big hand and also the Latin ones, all about genus and species, and pressed them, and stuck them on to white paper. It is nice, neat work. It sometimes seems a pity to pick all the flowers apart, for the insides were not half so pretty. Perhaps the best was all about bees and insects that just fitted into the flowers. They were after the honey, but they got all smutty with the pollen, which looked like flour, and they carried it to another flower, where it rubbed off, and then little seeds and baby plants grew. He said it was a kind of flower marriage. Perhaps that is why they have flowers at weddings. Sometimes we did feel that it was not quite modest; and I am sure some of the boys thought so. But the teacher said it was perfectly proper, and of course he knows."

And thus she prattled on, although it was as hard to get some of the above deep spontaneities from the last coy maiden as it is to quarry out the submerged delusions of a paranoiac. Two years earlier, or perhaps even one, she would have been less conscious about her little kit of knowledge of biology if she had acquired it then, but the penumbra of sex exerts its influence far beyond the consciousness of it. Of the examination knowledge the school seeks, the above shows hardly a trace; and in place of the exactness and thoroughness which is the pedagogue's fetish, there is little but nebulosities, smutches of knowledge, for the above are samples of what really struck vital root and sprouted in the *Backfisch's* soul. I cannot claim that all the above are exactly average girls. And those I enjoy the acquaintance of are far too few to establish a norm or to base final practical inferences upon;

they are only samples from the bunch as they chance to come, and all may be called bright girls. Of course they might have been so drilled and bepedagogued that they would have given me snatches of very decent examination papers, but these would have come from another and more superficial psychic stratum, the overdevelopment of which may perhaps have stunted the development of such spontaneities as I did obtain. Which of these two kinds of knowledge is of most worth—these naïve, natural reactions to the matter of the curriculum, or the desiccated, herbarium knowledge, labeled and stored away in the recitation memory? Is it not certain that the former will last longer and is more humanistic and vital?

One missie got an excellent start in Latin in the last grammar grade, and began in the high school with what seemed real interest and with a better college teacher, but disliked her ways, her voice, and taste in dress, and so dropped almost to the foot of the class. One did well in algebra as long as her best girl friend excelled in that study; but the next year she chummed with a girl who cared most for French, and so down went the marks in algebra and up went those in French. Another had taken Latin because she was brought up to believe that she would probably have to teach, but when her mother inherited a small fortune, she changed to French, hoping that she would some time be taken to Paris, the glamour of which prospect made her do well. Another had begun to fit for college when her parents moved very near a manual training high school which she attended, at first with a little disappointment; but at the end of the second week she reconstructed her plans of life one bright autumn evening with the aid of another girl, and decided to study domestic economy and such things, and marry some one when she got good and ready and just the right man appeared.

There can be no question that the high school has drifted further from the real nature of the child than any other grade. Are some teachers living in a fool's paradise; or to change the figure, is their acquaintance with the child's soul limited to its front yard, hallway, or formal caller's parlor, while they know nothing of what takes place in any of the living rooms where the child moves and has its being? Is it possible that the lost year or two that we have been seeking so long all the way from the kindergarten to the university lies here, and that the girl's soul is taking a vacation while her body goes to school? Is life opening so fast for her and with such manifold new richness that school just now pales, like the moon before the rising sun of womanhood?

Just going to school and coming home again on a fine day, loitering along for an hour or two, strolling by roundabout ways to take in new sights and with other girls, looking at shop windows, enjoying all the sights of the street, all the pleasures of companionship, and of freedom—hearing and telling all the news—what greater joy has life to offer? How all the cant about equality and identity of the sexes flies in the face of common sense! The girl does and should spend far more time in dressing mornings and undressing nights, and does and should give more thought to it than boys. In the single item of care of the hair there is a disparity that the psychologist ought to trace out. The girl has more garments, takes more time to don and doff her shoes, in pinning and unpinning, tying and untying, hooking and unhooking. If she is getting ready to go out, she needs more time for putting on her hat than a boy, in getting together all her things, quite all, till nothing more is forgotten, nothing at all; and all this takes minutes a boy has for other things, unless he is a younger brother and has been duly subjected to wait and serve until this grows intolerable to his bourgeoning manhood and the inevitable revolt comes.

It is hard enough to know how to educate a boy, but we are immeasurably further from knowing how best to educate our girls. If the psychology of the boy during adolescence is a long and perplexing chapter, far more so is that of a girl, whose soul we know so little, but which may prove to contain most of the secrets of the universe. A boy has some self-knowledge; a girl understands very little of herself or of the motives of her conduct, for her life is more ruled by deep unconscious instincts. Her self-consciousness is the reflected knowledge others have of her. In olden times and among primitives about the only education of girls was sex, wifehood, and motherhood, and what these involved, viz., just what we make it very hard for her to get at all. Once, along with scholastic ignorance, perhaps even to the point of illiteracy, women were early given by matrons all the wisdom of their sex pertaining to the essentials of life. Now these latter are to a great extent painfully and imperfectly acquired with little adult aid and against many endeavors to keep them in ignorance, while their intellects are crammed with the lore of books and of schools. Who has ever asked if the Blessed Virgin could read Greek or even her own tongue? At the other extreme are our college girls who are trained on the lines of George Eliot, Margaret Fuller, and George Sand as *femmes savantes,* with as little interest in progeny as these women had.

10. The *tendron* has not yet quite reached the acme of the curve of *weeping* and *giggling,* but is just entering upon its penumbral circles. A little later about half the American girls will pass through a stage of chronic tittering, as if their laughing apparatus were sensitive to some psychophysic hair trigger which anything can set off. The very air about them is an aura tense with titter and liable at any moment to discharge. The extremely susceptible will invariably laugh if only spoken to by anyone on any subject. One need not be funny or try to appeal to their risibles; and hence the interlocutor who does not know that this is a symptom or diathesis thinks at first he is being derided. Such girls are sometimes most amusing to each other, and wherever they congregate and confabulate they giggle. It is not that they are bursting with the joy of life like singing birds, for they are by no means always happiest when they laugh, and tears are on easy tap and may flow from no more rational cause. The psychology of giggling, so far as it has been investigated, shows that it has many causes: a desire to please, to show a happy disposition, or perhaps they fancy or have been told that their smile or the noise their titter emits is becoming. Or again perhaps the giggle is a direct product of a vacuity of mind that leaves them at a loss what fit thing to say, and so they laugh because that is vastly easier than the brain work needful for a rational response. It is nowhere near so hard to laugh when it is up to one to react socially as to talk. It requires less effort, too, to cachinnate than to chatter ever so emptily. Moreover it is a witching way of social intercourse,

cements friendship, and is to conversation what confectionery is to food. It is the feathery spindrift on the crest of the waves where social converse ebbs and flows. A spontaneous free play of diaphragm and glottis brings a sort of psychophysic ecstasy. One respondent who had belonged to a giggle club reports that the impulse was strongest in her mates in the afternoon and when there was fatigue or nervous strain. In a club the girls simply get together and anything and everything sets them off. In an exhausted state, of course, the tendency is greatest to pass over to uncontrollable and hysterical intensity; and the girls shriek and double up with laughter. But this is rare, and after it has occurred a few times there is usually in normal girls an inhibitory apparatus brought into action which suppresses and tones down the degree of hilarity and boisterousness. A number of our observers testify that it is intensified by the presence or even the approach at a distance of a boy. How the latter swells with pride at being able to evoke these salvos and peals of joy so readily! What grosser, sweeter form of flattery to the crude first efforts of his callow wit and wisdom! To him it spells appreciation in red capital letters. This no form of speech which the bud could ever fashion would begin to do in terms so eloquent. But let him not forget that these manifestations are never the effervescence of pure joy, and that they never mean all that they say to the stripling. Her pearly teeth, ruby lips, darting glance, merry laugh may fascinate him far more than any words or deeds of hers could do; but there is always enough of her soul that does not go out in this form, but is held in reserve to calculate, note, and record the effects of it all upon him. So let him not pose or linger too long at a time or he will note contrasting effects in her moods that will surprise him and give him a glimpse into her soul that would surprise her did she in turn realize his penetration. The giggle mood is ephemeral and the giggle age lasts but a very few years although its vestiges may remain in some characteristic simper or automatism far on into maturity after every vestige of significance has vanished from it.

Buds are less often *lachrymose*, and yet with many this becomes a habit for a time. The eyes moisten, the voice grows a trifle spectral and uncertain, halts and catches, and a smothered sob may be detected when, if the powers of control are wearied, a flood of grief may break forth and flow; and here, too, as with laughter, the abandon may be utter. Of course grief seeks solitude as laughter is evoked in society. Perhaps weeping is more often spontaneous and with no assignable cause than is laughter. Each person and each degree of exhaustion has its own definite cry point, beyond which a hair or a breath causes overflow. Tears, too, have their lunar periodicity as uncontrollable as the tides. Both laughter and tears are safety valves or vents and prevent extremes of responsivity to joy and woe. They relieve and discharge tension harmlessly when the strain threatens to become too great. The bud cries because it enlarges her experience with life, stretches out her plastic soul and adds to its alghedonic diameter. It relieves surcharged glands, exercises organs, tones up arterial walls, augments blood pressure, stretches the arteries toward their normal adult caliber, perhaps aids digestion by a vibration cure as laughter certainly does. The girl is exercising the apparatus of pain against the day when real sorrow will come. Moreover, it brings instant sympathy and pity, so nearly akin to love; invokes ministration and all the arts of comforting. Tears are weapons of both defense and offense, for they shoot pangs into the hearts of all who might have prevented them; they summon friends to every tender office. The bud is ashamed ever to cry in the presence of boys, who are often so cruel as not to be instantly melted, and who are not ready to place all they can do at her disposal. The bud's indignation is hot when for the first time she cries in the presence of boys, and finds that, far from causing any disarmament, it brings taunts rather than help. How she would herself despise a boy who would cry for what she does and has a perfect right to do whenever and at whatever she wishes! At this stage she is learning to cry *at* people with reserve enough to note, study, and eventually to calculate with great accuracy beforehand its effect. Thus she may learn with consummate skill to win her way with her mother, brother, sisters, friends, and to evoke at will compassion, remorse for mistreatment, neglect and punishment, fears on their part lest she should harm herself in her paroxysm or lest her outcries should proclaim to others that she was cruelly abused; or the long cry may bring fatigue that wears away prohibitions, or it may summon instant assistance in sharp and dire distress. She quickens and freshens love because of her sorrows, at least becomes more interesting, and sometimes prompts in those responsible for her conduct resolves of new regimen and treatment generally. The bud is never conscious of such motivations, but they are often as plain as day to others, although deep indeed would be her humiliation if she knew how transparent her soul was in this as in so many other respects. Very different again is the motivation of those cases where the bud goes to her room or elsewhere alone deliberately to enjoy a good cry for its and her own sweet sake. This is almost physiological exercise, vitalizing functions and organs prone to atrophy, but needed in her future life, some of them for complete wifehood and motherhood. These spells relieve her soul and body and she emerges to equanimity rejuvenated, purged of perturbation, poised, radiant, with her control and euphoria at their very best.

These two experiences together add incalculably to the meaning of life; its pleasures are lighter, its pains blacker; and this added color makes the bud more adequate to respond effectively and affectively to a wider range of experiences. The heights to be attained and the depths to be avoided, too, are both greater. The psychic diapason is extended both ways; the range of experience is broadened; and motivations are multiplied and intensified. The soul swings and rotates now freely and normally on its axis of pleasure and pain. These are the sovereign masters of life. Orientation and polarization give sanity a firmer and more secure basis. By laughing and crying, good and evil are made to appear further apart. Moral loves and hates are given their bearings, and so life is aglow with color and zest. Ethical values are differentiated with a wide enough interval between positive and negative to give ample scope to all endeavor. In other words, the scale of good and evil is longer and better graduated, so that all the reading can be finer all the way from the hedonic narcosis at the top to miserabilism and despair at the bottom.

11. Of one thing, that is surprising to me and is contrary to the general view, my studies of the *tendron* have at length quite convinced me, and that is, in general, she is by nature

almost utterly *unreligious,* according to any true conception of religion. The boy of this age is far more capable of truly religious experience; and although the girl will excel him later in this respect, her religion will always be a very different thing from his. The bud does well in the work of the Sunday-school, is confirmed or converted, may pray, attend church, read her Bible or prayer book with a certain conscientiousness; but true religion is essentially foreign to her very psychic constitution. She lives, and normally so, in the present, is myopic in her mental vision and interests, and sees and feels chiefly what is here and now. The remote both in time and place often makes strong appeals to boys, but not to her. God, heaven, a future life, are dim fairy tales, poetic at best, but making hardly any personal appeal to the deeper strata of feeling. Personalities about her are so intensely absorbing that those at a distance are eclipsed. The story of the cross moves her chiefly as a moving romance; Jesus is an amiable, pathetic, tragic hero of a far-away age. All doctrine and theology, too, are of course abracadabra for her. Even later in life she could never raise the question of the orthodoxy of a clergyman she liked unless he were really *outré.* Awe and reverence she feels through others essentially rather than individually. She loves to have her feelings stirred because emotionality is her life. She is impressionable, but her sentiments are fugitive. The different feelings overlap in her soul, and are so incompletely differentiated that any emotion, if strongly excited, vicariates in a measure for all the rest, and thus she is for a time less easily moved by any other. Mundane excitements usually quite satisfy her affective needs. The divine, to be strongly sensed for her, must, of course, be incarnate; but even a remote God-man hardly appeals to her as much as some one she can at least see occasionally if not have daily near her. "Jesus is awfully dear and sweet, and I know I should have liked him if I had been there," said a bud to me one Sunday twilight. "I don't like to hear about the Crucifixion; it makes me cry, and I wish the minister wouldn't talk about it," said another. One, having participated in her first Protestant communion service, said: "I swallowed the bread all right; but the wine choked me; it tasted dreadfully, and the minister said it had some blood mixed in it. I had to shut my eyes to swallow it, and it tingled so it made the tears come. I was so glad when it was all over." "Why did he have to die for us? I would not let him die for me; I can't see the need of it." Another's ideas of God seem to be a long white-bearded bookkeeper setting down everything with a special account for everybody, looking up every little while to give orders to the angels and to receive newcomers. "Old people ought to be very religious, for they have to die soon; but we young people ought to have a good time before they trouble us with such things." Real prayers are to have strong present wishes gratified, and God and heaven are courts of last appeal if she is thwarted. She prays because it can surely do no harm and might help, like crossing her fingers or throwing things over her shoulder when she wishes. Hers is not the age of devotion and utter service, but it is the time set apart by nature for self-realization. Her environment charms, owns, sways her completely, and the piety of the church is only rather mild æstheticism, or for rainy-day moods. All the larger ultimate problems that encompass life are for her a far cry, for which she has no ears. In fact, pure maidenhood is the very quintessence and symbol of innocence and virtue, if there are such things in the world. The sense of sin in such souls would be morbid, so that the felt need of a personal savior is an artifact or an exotic thing, however successfully it may be cultivated in the hothouse of ecclesiastical influence. Only later, after the heart of young maidenhood has begun to yearn for companionship and protection, or has felt a love not satisfied, does she turn to religion and consecrate the best that is in her upon the altars erected by faith. Therefore, I would protect the *tendron* from most of the specific efforts of all professional religionists, save only perhaps some confidential or confessional guardian of her conduct in her daily life. Perhaps she needs just now a mother-confessor. At this stage the best religious training is getting ready to be religious later when the soul ripens into the need of it. The bud can rehearse its forms, practice its psychic attitudes; but she is too immature to act a real part in its great drama.

12. *As to her sex pedagogy*, from reading over many answers to syllabi collected by Miss L. Crum from educated

girls, mostly between eighteen and twenty years of age, the following results stand out. Most of them first learned of the sex act as causing babies in the very early teens, the stage of romance and idealism. At this period the gross animal aspect in it brought an initial feeling of incredulity, skepticism, and distrust. This seems to be the rule at this age. One reason for it is the disillusion and fall from exalted dreamery to a fleshly fact, and the other is because most girls have all too good reason to be incredulous because upon this topic, as upon no other, they have had a long experience of deception. Hence they ask others, turn to "doctor books," observe and ponder. Those familiar with domestic animals in the country, or even those who have studied botany with insight are more easily persuaded. When fully convinced, the first and statistically most common feeling professed is expressed in the words "disgust," "aversion," "horror," "shame," etc. The very suggestion that their parents could have done such bestial things alienates them and abates respect and love, and for a time isolates them at heart, brings depression, etc. There is a certain withdrawal, and curiosity becomes covert and spies for new evidence. Such knowledge could not come at a more antipedagogic and unpsychologic moment than just now when the soul seethes and teems with emotional ferment and when the tendency to sublimate and spiritualize all these relations is at its very height. Thus it always involves grave loss and waste, while if this knowledge came years earlier, as we have seen, it would have been assimilated before and transcended now. Unfortunately for the Freudians, we do not find at this stage in all our data any trace of anything like jealousy of the mother on the part of girls, and so probably if this is an essential constituent of sex, the girl's side of the Œdipus-Hamlet motive must come later. Realization that the girl owed the inception of her life to such relations is to a few the acme of humiliation.

But this primary reaction of aversion which is very rarely absent in our cases is usually shot through from the beginning with a strong attractive element in the form of curiosity, which is often very active and enterprising. Sometimes there are expressions of extreme and even eternal gratitude to the informant. The bud attaches herself to the older girl, playmate, or mother, who has told her all, by a new bond. She who knows and tells is given the key to her very heart, provided it is told in the right way and with due glamour of mystery and awe. The mentor in these matters becomes guide, philosopher, and friend in a way and to a degree that almost suggests mashing or crushing. Hence the higher motherhood has here a great opportunity. To such wise mothers a girl becomes docile and tractable, even in other matters, for she realizes her ignorance and dependence and glimpses the way of further initiation into the great secrets of life. Yet the intimate converse of young and newly married women with young girls is in not a few cases in our records unintentionally pernicious and inflammatory, for newly wedded girl wives sometimes feel the experiences too hard to keep from their younger friends and even sisters; and thus this form of initiation usually brings later censure upon the informant. At the other extreme are other mothers who would tell nothing; and in seven of our fourscore cases, not even when asked or importuned to do so. This refusal, on the other hand, causes estrangement and resentment, as few other refusals on the mother's part can do. Sometimes the mother is bitterly condemned for her reticence by the daughter when mature. Some aver that they never can feel right again toward their mothers for pursuing this course. Some profess that the bald facts gave them a permanent aversion toward all men and that this caused them to pass through a stage that made them resolve that they would not marry. The most grotesque errors are held; e. g., that many repetitions of the act are necessary for conception; that all boys and girls, especially engaged people, indulge in such practices; children emerge from every orifice of the body or from scars in any part, which may grow up again; women are cut open; babies are smuggled into the house; it is wicked and dirty to have children; God is good not to send babies to widows or to girls who have no man to earn money for them, etc. Illusions innumerable, many of which seem impossible, are struggled with and pass through all stages of acceptance and rejection. Because these errors crop out when children turn to adults, so that they are naturally laughed at rather than sympathetically answered, they turn to other unworthy sources. They perhaps gloat over bad words, look them up in the dictionary, write lists of them, absorb and underline passages in Shakespeare and in the Bible, collect quack advertisements, smuggle and circulate indecent books, read "medicologies," text-books on physiology and anatomy, and bestow at least some of the spontaneous respect and gratitude toward those who can truly teach virtue upon very unworthy mates. It is thus easy to see here why it is very hard for girls to ask their mothers, and why some who have acquired the knowledge they have received surreptitiously fall later into a defiant mood. "My mother wouldn't tell, but now she doesn't dream what I know." "I could tell her a lot now that would surprise her," etc. The most pathetic of all and the most often repeated is the wail when it is too late: "Why did my mother not tell me?" Genuine as this often is, it must be freely granted that girls who have been unfortunate, often incline to overemphasize their ignorance and innocence to lay the blame where it does not belong.

About one fourth of the girls in this collection report having heard young boys and girls of thirteen or under in grammar grades conversing on sex subjects. When this is done in groups, the boys usually make gross allusions, using language of double meaning and with precocious and incredible power to give vile suggestions to everything; the girls understand, or often affect to do so, and snicker and giggle as if they thought they would be lacking if their knowledge did not match that of the boys in this respect. When such conversation is in pairs, the talk may be utterly vile, and the most vulgar notes and words that sometimes pass between the sexes at this tender age are incredible. Boys are aggressive, girls unknowing and acquiescent, until soon a few really bad girls take the lead and initiate iniquity. Even at this early and naïve stage, immoral acts are reported in sixteen cases; and eleven of these eighteen- to twenty-year-old girls are very emphatic in the opinion that the sexes should be separated in the upper grammar grades in order to avoid this kind of contagion, most of them holding that conditions here are worse than in the high school. Despite the spirit of loyalty to schoolmates that condemns "peaching," and the unfailing injunction of the boy wrongdoer not to tell, many teachers and some parents have added their testimony that a single bold, bad boy, who thinks it brave to say evil things and, if possible, do evil deeds to girls, may set fashions that will soon corrupt an entire class or even school or town.

The most indubitable conclusion from our painful collection is that parents must be strict enough to see to it that before the teens approach, their girls are never left to go unchaperoned to picnics, excursions, plays after dark, hide and seek, etc., and are in at early curfew hours nights, and, above all, are kept in confidential relations with their parents, from whom they should have no secrets. Overstrictness and too much watching directly cultivate deceit. The safeguard of early knowledge of all essentials needful gives a girl a sense of superiority to all vileness; her mind has been satisfied with information and so she is relieved of the propensity to obtain it from wrong sources. The girl who knows all simply and cleanly betimes is poised and immune from much corruption in her environment to which ignorance exposes her. The knowledge that has its sign and center in sex irradiates far more widely over all the spheres of life in a girl than it does in a boy. The former has far more to learn and must begin earlier if her education is to fit her to live hygienically and bio-economically through all the adolescent crises. She needs to know these things in a larger, broader way than the boy, and thus she would command the respect and ultimately be able to teach man far more in this field than he can teach her.

13. From this inventory of actual and possible qualities we must not omit the *degenerate type* branded with bad heredity and handicapped by low home environment. The few who find their way to hospitals and industrial schools, sad as is their case, are very instructive to the philosophic student of psychogenesis in girls. Here are found those debauched and steeped in vice and disease, body and soul, depraved to a degree that only those who have specifically attended to their type can credit. In reformatory institutions for the restraint of such girls we find occasionally those who have resolved deliberately upon a life of shame, and who, with less brazenry and effrontery than apparent utter sincerity defend their choice by urging that such a life is easiest, affords good clothes, amusements, absence of hard work, etc. Moreover,

as society is made some must enter such a life and why should those who elect it be prevented? A short life and a merry one appeals to them, and they are not impressed by the prospect of disease or even of early decrepitude, or both, for the future cannot appeal to their shortsighted and feeble intellects with force. Some are passionate to a degree possible only to the hot blood of youth; while others have an inordinate love of pleasures of appetite and dote almost incessantly upon sweetmeats and intoxicants, the taste for which is so strong and early that it must be an inherited stigma. Girls in these retreats and homes are usually not only ignorant but emotional to a degree probably seen in no other class. They get into half-hysterical ecstasies over the present of a doll or a pet, which they embrace with tears of unbounded joy. In all, they are inordinately demonstrative; in a moment their mood undergoes extreme change from grief to gayety, from effusive affection to savage rage that may break out from the most trivial cause into a transport of fury. They are abject victims of the feeling of the moment and completely carried away and at the mercy of the feeling that happens to be dominant. They are not infrequently highly susceptible to spasms of religious emotion, and so are readily swept into making any vows suggested, so that revivalists, who used to have extraordinary success here are now usually excluded from such institutions because revulsion is so inevitable and extreme as to bring wreckage of all good impulses and resolutions of reform. Their love for a chum or teacher is extravagant and may lead to every extreme manifestation, but this affective instability makes permanent improvement almost hopeless. Regret and remorse, if they are capable of either, is evanescent, and only too often, after years of great care, instruction, and habituation, the moment they go out into the world the effects of the efforts of all their teachers are swept away overnight, leaving hardly a wrack behind. In the worst of these cases, shame and modesty seem to be utterly lacking, and nothing but physical restraint can prevent them from sinking upon the first occasion into the lowest depths. Is it possible that nature may have brand-marked some of these cases for a life of infamy? If so, it would seem that these doubly depraved beings, were they the only denizens of houses of ill repute, would serve to disenchant and disgust the young men who visit them in such haunts of vice; and surely those who find any of the components of their ideas of women in such specimens must soon be unfitted to live with decent wives.

Industrial schools, which receive girls of from ten to seventeen who have gone wrong and some twelve per cent of whom are venereally diseased, who are usually low in the school grades, intensely emotional, usually with spells of various kinds, such as excitement, obstinacy, silence, tearing and smashing things, proud that they never did anything they did not wish to, and of their tantrums in which it took several men to hold them, confront utterly unique problems. Such girls must tingle, glow, and crepitate, perhaps exercise to the point of second breath and exhaustion, to safeguard the above outbreaks, which are often connected with periodicity. Their low mentality makes them all emotion; they often have a passion for making themselves centers of attention, which they will do at any cost. It has been said that in such institutions a few men in the twenties and thirties, who were pure and ideal, about whom their affections might center, would quicken their intellects and polarize their moral character. Certain it is that pure love only can bring out their best qualities. Motherhood often wakes up stupid, and may even reform vicious, girls and gives them their first sense of what home really means. "High-grade mentally defective girls are far more dangerous and expensive to a community than any other class in it," says Dr. W. N. Bullard. To the observer visiting them in an institution they seem impassive, mopey, and institutionalized. Probably the dramatic instinct might be cultivated in a crude way with the best effect; telling exciting stories, or perhaps the direct inculcation for the younger ones of an ideal companion, such as children often spontaneously create, might help. Some have thought that very realistic presentations of love in a more sensual way than normal moral standards permit might be made of service, on the Freudian principle, that a consuming fire may be best fought by a milder one of the same kind. It may be that a course in extreme and overdrawn affectation and also in definite make-believes might work, on the principle that grave dangers need to be fought by milder ones.

The medical and psychiatric traits of an abnormal *tendron* prone to pornology are unique. Instead of sloughing off, she absorbs all that is vile in her pathway. Expert studies show that infection of disease is more virulent when imparted from young girls. It seems as if nature had decreed to conserve for a short season their individual existence by giving them some power to throw off on to their victims the germs of disease, so that for a time freshness of looks goes along with peculiar power to diffuse the very most active forms of infection. If she knows what she is doing, she rarely has any conscience about it. She understands but scorns the use of preventives of both conception and contagion. At first she was more sinned against than sinning, but perhaps she, or the great *αὐτός* back of her, thus takes cruel vengeance upon the sex that corrupted her. She may come to feel that it is all in a day's work. There is a widespread delusion among those of her sort that as long as she can ply her trade she suspends thereby her sentence of disease and death, for this is her motive of self-preservation and keeps her at it until the acute hospital stage compels her to desist. Thus she becomes a veritable vampire, a curse to the race, whom primitive people in so many lands have burned or drowned with heavy weights in water or smothered in quagmires.

Here, perhaps as well as anywhere, too, should be uttered a note of warning, which may occasionally be necessary, to a few buds who are peculiarly exposed to city temptations, against *granting liberties.* Court records show a small but growing list in some cities of boys actually under fifteen who, having become physically acquainted with young girls, have sold their knowledge sometimes at a high price, for there are those who buy it. They detail to their purchasers the secret circumstances of each experience, adding possibly sometimes some hidden physical peculiarity in confirmation, and the purchaser, armed with this knowledge, has the girl in his power and knows only too well how to use it to complete her downfall. There are even white-slave agents who make a specialty of preying upon girls of this age who may have been placed on probation by offering them facilities to effectively escape surveillance—girls often, too, who have never been compromised in the domain of sex. But enough and too much of this. Pedagogy may need to utilize all these facts, but they are to be appealed to, of course, only in extreme and desperate cases, so that perhaps even the author's ideal of completeness in treating this subject may hardly justify even these allusions.[1]

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[1] See War on the White Slave Trade. Edited by Ernest A. Bell. Chicago, Chas. C. Thompson Co., 1909, 481 p.

One of the very last things most young girls learn about sex is what specific act causes impregnation. Many censuses and returns show that a very large proportion of American girls in the communities studied reached the age of menstruation with utterly erroneous if not absurd ideas, and perhaps with no knowledge at all as to the male agency in the origin of life. Not only are some ignorant that this sex has anything to do, but a few have not even learned that children come from the mother's body, from what part, or how. Others think babies come by eating or drinking some particular thing, of which latter quite a list might be prepared. Some believe they come by kissing, by various kinds of contact, or at a distance, through the clothes, or by praying. Many do not know of the existence of the vagina. From some fourscore rather detailed answers which I have just gone over from educated girls, mostly intending teachers, from seventeen to twenty, it is pathetic to see the long travail of soul by which many of them have attained enlightenment, and how much reconstruction is necessary when full knowledge comes late. In this case there is at first usually great revulsion and even incredulity, certain traces of which linger long and interfere with natural relations later in wedlock. Parents often think this ignorance to be innocence, when in fact it leaves a girl unprotected and exposed to the rudest awakening. Not a few of the tragedies in this field are of the Wedekind order, due to the fact that boys locate their feeling and know how to gratify the passion at an age when girls remain ignorant. The latter often vie with each other in striving to be popular with boys, and to win out in this competition they are tempted to grant liberties, and that, too, at an age when they perhaps have nothing but the natural sense of shame to protect them; and this, unfortified by knowledge, is often all too easily worn away or broken through.

At the bottom of the moral, and more often, though by no means always, of the social scale, I find from data accumulated for many years, often from teachers, who sometimes write anonymously and with great detail, also from the archives of the various welfare agencies and the reports of social workers, that it is indubitable that a certain proportion of girls in our city grammar schools in the very earliest teens and before are utterly corrupt and occasionally naïvely so, as if modesty and purity did not exist for them. They are little animals infecting quite a circle of boys with vice, and once in a while with disease. In extreme cases, the parents of such girls lack all sense of decency, and may even condone their fault, although, if convinced of it, think it the common rule, etc. Such cases, of course, represent the dregs of society, and in many, let us hope most, schools they do not exist at all, for localities differ very greatly in their prevalence. Not a few boys of the reform-school type, under fifteen, know how to use preventives. It is surprising, too, to see by how many simple but commonly all too effective ruses such facts and cases are concealed from the adults nearest to them, and who, it would seem, must know but do not.

It is painful to write these things, but it seems a duty both to the community and to the hundreds of people who have, with much effort and sacrifice of reserve, collected and contributed the facts, not only in the way of answers to questions, but by unsolicited notes, confessions, and sometimes by clever detective work. Those who know these facts have one argument against coeducation for budding boys and girls which those who maintain the old attitude of incredulity or wholesale denial know not of. Many teachers who have run with success the machinery of our public city schools for decades have never seen these things, so clandestine are they and so invisible to those who look only upon the surface. Few parents, either, enjoy such complete confidence of their children as to know what the latter know in this field. The only ostensible signs of this precocious iniquity are the obscene words and pictures scrawled on sidewalks, walls, entries, closets, and surreptitious notes occasionally intercepted. But there is a body of indecent tradition learned by many if not most children before puberty which is later suppressed and quite forgotten in adult life. It is such data that have led me slowly and against my earlier impressions to hold that under existing urban conditions every child should now be given pretty full though brief and succinct instruction in all the most practical matters concerning sex as early at least as eight or ten years of age, and that this should not be left to the dawn of puberty, as is the ancient usage among savages and older civilizations. If properly done, this would set a backfire, or perhaps, in better trope, give immunity so that the shock of *éclaircissement* would come in its mildest and most benign form before it means so much in the way of tension as it will later, when the body and soul are more developed. This would tend also to safeguard against the corrupting influence of what is low and indecent in the environment. Now curiosity is so intense that, if there is no other way to learn, it absorbs even filth for the sake of the infinitesimal grains of knowledge it contains. But if informed, the malign charm of this would be destroyed or turned to aversion. It is well, too, that good girls should feel for a season while they are immature some measure of aloofness from boys and cultivate a reserve which in the latter inspires a sense of their worth and inculcates wholesome respect rather than the sense of too great familiarity and *camaraderie* now too prevalent. The boy should realize how different the soul of a girl is from his own and should put off some of his instinctive ways in her presence.

The girl who is well furnished with a knowledge of what she should know early, has more psychophysic poise and control. She has been initiated into life. She need not strain, worry, or be anxious, for she sees her course, knows her duty, can adjust to life and is far more mature in all these respects than the boy of the same age. Her knowledge is not seething or tingling in her consciousness, but has slowly and naturally sunk to reënforce instincts or regulate conduct aright and easily, for such ripened insight gives power and not weakness. Knowledge has worked as a leaven insensibly, so that the stages of maturation are normal. If readjustment to nature was necessary, this was made easier because it was so early that it brought no abatement of the joy of life, no revulsion, so that now true innocence is possible. Freud has made out a strong case that shock and traumata in the sex sphere a few years before the dawn of puberty lay the foundations of many if not most of both the neuroses and the psychoses to which girls are liable when they attain mature womanhood. If this is so, it would seem that instruction even before this age could not fail to mitigate the strain of sudden chance envisagement of the grosser facts of sex. Thus girls soon after entering school should be taught very concisely and individually, and of course if possible by their mothers, what is essential in this domain as a kind of vaccination against chance infection by a more dangerous virus. Much depends upon the individuality, and needs differ, but reproduction plays a far greater rôle in the life of woman than it does in that of man, and it would seem that from this point of view alone girls need more knowledge and earlier than boys.

Yet another, perhaps the most cogent, argument in justification of the view that girls must be told very early is that, if this is done, the accent will lie chiefly upon childbearing, as it should, and that only later with adolescence will the factor of the relation of the sexes tend to come to dominance. In this way the girl will be anchored betimes to what is really the essential thing, viz., reproduction and the carrying beneath her heart and then bearing children which are the hope of the world. Thus interest in the marital acts will tend to be deferred until the age of passion comes. It will also tend to be controlled because it had for years been known coldly as an intellectually apprehended fact, untoned by affectivity. Love when it came would thus never be entirely divorced from thoughts of motherhood, as is often the case when the whole sex story bursts upon the child at the moment when sex has just become the dominant organ of apperception. Thus I believe not only would vice be in a sense forefended, but the glamour of romantic affection would be wholesomely tempered and normalized, and the rich, deep life of sentiment purged from the dross of gush and sentimentality.

In the midst of all this ferment the *Backfisch* must cross the Rubicon of menstruation, which brings with it the first full realization that her life is to take a very different course from that of boys. If not instructed beforehand, the first advent of periodicity brings alarm and possibly mental terror. Perhaps the simplest hygienic precautions are unknown; and errors of regimen strain her constitution and lay the foundations for invalidism later. Now again she needs a mother or an older female friend. When told what they must know, some girls revolt at first in the very depths of their being; this function is a curse laid upon their sex and they wish and pray that they were boys. The prospective lifelong necessity of stepping aside each month to pay the price of being a woman seems insupportable; it is not only painful but a disgraceful badge of inferiority. In some this revolt takes the form of resolutely ignoring it and going on with all activities as at other times, till they come to protest, perhaps as feminists are wont to do, that it makes no difference. Reasonable, normal girls, however, usually learn in time to accept the inevitable with joy, to rest, read, muse, and enjoy the luxury of occasional slight illness and the indulgences it brings, to relax tension, to gather poise and strength, and to make it a retreat in which they can take larger, calmer, and more insightful views of life. The partial withdrawal from society and from school occupations which should always occur, the stepping aside to let Lord Nature do his magnificent work of inflorescence becomes to wise women no longer a stigma of disgrace but a token of superiority, bringing new view points, enriching and enlarging the gamut of moods, deepening the life of feeling, encircling her at this season with a kind of halo of a mystery to herself as well as to men who know not this Sabbath of sacred withdrawal and repose. Pathetic in our returns are the records of the cruel jibes and taunts of obscene boys, to which in our coeducational system girls are now exposed in the upper grammar grades, and the more silent but puzzling curiosity and scrutiny of the other sex in High School. This is an experience from which, if woman ever achieves her true and full rights, girls at this age will be shielded. Even their seasoned woman teacher has left this all so far behind, her stage of incipiency has been so submerged to her own consciousness, that she observes very little of this in her pupils and does not realize that not only months but years are needful to establish the complete regularity that is securely poised between excess and defect, and that during this period everything in the environment and regimen should be subordinated to this function. She has no cognizance of the exquisite sensitiveness of the bud at these times to everything about her, or what a difference of mental and emotional life there is between the trough and the crest of the menstrual wave, or how it affects moods, mentality, blood pressure, appetite, nutrition, and every part and function. In a sense, the girl has become, perhaps in a day, a woman, but a very callow one, needing endless sympathy and care. It affects her character for, though perhaps independent and wayward before, she is now more docile, accepts dependence, perhaps loves direction and even restraint, if it is wise and affectionate. Indeed, our data abound in statements of what was allowed or forbidden her at these seasons, which are saturated with a spirit of satisfaction, if not pride, in being loved and cared for, directed, taken in hand, managed, commanded, as if even strictness and the denial of her own will brought her pleasure. All these things the *Backfisch* at any rate accepts with an acquiescence that often surprises her friends, for in it she finds a new sense, not merely of pleasure but of power. If she is informed of the physical facts of sex a few years in advance, any shock that may chance to come to all—and it is almost certain to come to unprotected and working girls—is not only minimized at the time but, the insight having been assimilated, the subtle process of idealizing and spiritualizing these relations themselves goes on apace, so that it soon comes to seem pure and full of manifold higher symbolism. For the normal girl the whole process is a majestic processional; and when complete maturity and nubility arrive, she realizes that she is intrusted with woman's supreme mission, that of transmitting the sacred torch of life to future generations and that she belongs, not to herself, but to posterity.

14. *Certain minor psychic abnormalities* which may shade over into grave mental defect, but which the vitality of this age also has remarkable power to throw off, are not uncommon. The senses influence each other more. Not merely do things taste good that please the eye by their color and form, but beauty diffuses its charm from each sense to one or more others as if full differentiation had not yet taken place between them, and as if there really were at this age a kind of Kantian sensory for common sensibles, where they meet and mingle and where impressions are exchanged. Things that feel good to the touch are lovely to the eye, and rough things look ugly. The moral qualities of persons are often judged by their voice and looks. In æsthetic qualities the senses go together and what pleases or displeases in one does so in all. Careful studies, too, show that this is the age of synæsthesias. One of the most primordial of these is the impulse to personify and give definite traits of character to inanimate forms

and objects, seen in a moderate percentage of boys and probably still more common and more developed in girls. The figure *8*, e. g., or the letter *s* are usually complacent, poised, perhaps smiling people; *l* is perhaps the major general of the alphabet, helped out by *h* and *f* as subalterns; *t* is a stiff pedagogue with high collar and extravagant necktie; the tone of a fife perhaps is distinctly yellow or red, that of a violin, pink. Diagrammatization, however, seems more common with boys. The days of the week, the months, numbers, e. g., are arranged in the imagination along a definite line with angles, curves, circles, and always thought of in this special position of relation. So, too, synopsias, photisms, phonisms, and colored auditions in their various forms are at the acme of their curve of both frequency and intensity in the early teens. Probably the tendency to sexify or give gender to inanimate objects has now only just begun to rise to its crest. All the innumerable cross-reference phrases like a heavy, hard, rough, or sweet sound or note; a bright melody; a loud color; and innumerable more which philologists collect are readily understood; and all that the pregnant word analogy means to the grammarian, so far as it relationizes sensations of different species, is near its high-water mark. Probably all this is a slight atavistic relic of the common origin of all the senses from their mother touch. Differentiation is inversely as overlapping, which is one of the characteristic traits of childish mentation; but all the senses are by no means as yet so disparate as they will become at complete maturity.[1]

The modalities of speech are, as it were, mobilized from their more undifferentiated childish to their more independent adult relation. Probably endophasic or inner language tends at first to be predominantly motor, not in the sense of inner articulation but because speech has not thrown off the older language of gesture from which it sprang. Indeed, I think we may say that even girls, though less than boys, tend to be gesture-minded before they are ear- or eye-minded. Far more of the meaning that speech strives to express goes over into stress and inflection, facial modification, and bodily movement generally, so that these symphonic accompaniments bear most of the burden of meaning. These types of inner speech, which is coming to be more closely connected with thought and feeling than ever before, are many and varied, so that for some time the individual is more or less balanced between these various forms of active or passive thought phases before either comes to predominance. In the bud all these tendencies are found. She thinks by innervation of the organs of articulation and, if alone, is sometimes prone to whisper and mutter or even exclaim, perhaps to act out her thoughts with considerable pantomime and facial expression. She tosses her head, sneers, smiles, shrugs, because her ideas are so efferent and so near to repressed action. Again, the bud, if fatigued or neurotic, quite commonly hears voices; and this trait, if accentuated, may pass over into the typical form of hearing as if by an outer voice the inmost secrets of her own heart revealed and betrayed. Some of the bud's mentation is dialogue, in which she speaks in the above repressed way and hears her interlocutor's voice with almost hallucinatory clearness. Verbo-visualism is rarer and must, of course, have a later phyletic origin. Sometimes, though very rarely, words stand out as if written on the wall or on a page; but visions rarely take this form.

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[1] See P. E. Bleuler and Karl Lehmann, Zwangsmässige Lichtempfindungen durch Schall und verwandte Erscheinungen auf dem Gebiete der andern Sinnesempfindungen. Leipzig, Reisland, 1881, 96 p. See also Theodore Flournoy, Des phénomènes de synopsie (audition colorée); photismes, schèmes visuels, personifications. Paris, Alcan, 1893, 259 p. Francis Galton, Statistics of Mental Imagery. Mind, 1880, vol. 5, pp. 301–318.

Perhaps more pronounced (although available data do not yet enable us to speak confidently as to relative prevalence) is the *tendron's* predisposition to certain forms of paramnesia. Reverie, imagination, and even dreams are mixed up with real experiences in various ways and to all degrees; for she may find self-realization either in sleep, in waking, or in day-dreaming; since these, like the senses, are not yet so fully demarcated one from the other as they will be. This is one reason why objective truth-telling is so difficult. It is more marked in nervous girls, who in some semitrancoidal state may have experiences so vivid that they transform or even eclipse facts. Subliminal experiences usually seem to be old and, if they attain a place in the memory plexus and are located in time, are usually placed too far back. Something present often seems to be a repetition of what has been before experienced and perhaps the date may be fixed for the *déjà-vu* event. Again, occurrences very insignificant in the past may be suddenly and spontaneously remembered with great vividness, because something like it formed the theme of a dream which was forgotten as such. In somnambulism this is all still more pronounced. The levels of conscious and unconscious life are not yet well distinguished and here, too, as in the above cases, the compartments are not yet impermeable. Fact and fancy, waking and sleeping, are psychic modalities, all coöperating and tending toward the same goal of development. Hence such phenomena are neither surprising nor ominous. Yet in sleep and reverie there may be slowly evolving the elements of delusion which, if sanity breaks, may come to be systematized and take the helm in the soul. There can be no doubt that the night life of consciousness plays relatively a more important rôle in children than in adults. This class of phenomena also suggests to us—as they themselves are so alien from adult thought as to be a little hard to understand—the direction in which we must look if we are ever to learn how the mind of the child itself, which is as different from that of the bud as hers is from the adult's, really works.

We have seen above some results of an insufficient or incomplete differentiation. We also have at this age, as we should expect, the opposite tendency of overdifferentiation of psychic elements which threatens and sometimes brings various forms and degrees of divided personality. Grasset, Sollier, and, latest, Lemaître[1] have gathered exquisite cases of autoscopy or seeing oneself as one's double. If we analyze dreams, we always find, Freud says, that at root they are egocentric, i. e., the hero is either the dreamer himself or some one representing him in some specific relation. These experiences may be rather pallid, like day- and resurrected-dreams, and motivated by them or they may go on, with hallucinatory intensity enough to make us completely believe in their reality. Even adults are sometimes frightened by a dream or illusion of seeing their own spectral form or ghost. In one case I knew this specter seemed related to and perhaps to be that of an imaginary companion who had been at the same time the playmate and to a great extent the double or alter-ego of an only child, a rather solitary girl, who had abandoned this crony as is usually done in such cases before this age. At every stage of life man is engaged in the complex task of composing his own ego, and at this stage certain important features of our personality are being added to the complex constellation that constitutes the self. In case the process is incomplete or arrested, incipient bifurcation occurs and is especially prone to occur now because the rate of ego development is so accelerated. These apparitions of self may come in a state of exaltation or ecstasy, may be the result of strong emotions, or traumatic; but in some children these experiences are accepted and become perhaps rather frequent and familiar for a season and then completely vanish. Many such kinds of experience may show the first surface of cleavage of a second, off, or dual personality. The fission may begin when some oneiric reminiscence pushes strongly to the foreground. The girl may hear two voices within her or, in other cases, one voice without may seem to discuss with another in her breast; one, e. g., is sweet and low and pleads for the right, the other is dissonant, malignant, arguing for a wrong course. There are surely at least two souls. One pubescent saw in a dream his own breast opened in a school demonstration in anatomy and saw his teacher touching the vital organs successively, due in this case probably to a too heavy supper. Girls on the threshold of woman's life often fancy their own souls hovering above or about their bodies, and although it may be invisible to others, perhaps they may be utterly absorbed in intuiting their own objectified selves. Sometimes the latter are seen in past or possible future circumstances of extreme danger, perhaps they are acting some ideal rôle. The bud has a very clear image of how she would look as an angel. In one mood she may be able to visualize herself when under the influence of another mood, though this is very rare. She may have visions of almost hallucinatory vividness of how she would like to look, or be dressed, decorated perhaps as a bride. She may be rapt and transported as the heroine of an exquisite romance or idyl with even the most extravagant wish of childhood fulfilled.[1] In acute cases girls fall into trancoidal states, speak unknown tongues, reproduce in great detail things impressed upon their souls which are far beyond the ordinary power of memory to recall and in ways that suggest the existence of higher powers in man that are rarely evoked. Sometimes there seems to be either an imminent or a transcendant ego that looks down and sees the empirical ego weep, laugh, strive, play, work, remaining itself a dispassionate, almost disinterested, spectator, wondering what she will see herself do next. In flitting instants everything may appear unreal—she herself most so. Everything seems far away. Is she sleeping or awake? Does she really exist or is the world a mirage, a bubble that may any moment break? Sometimes she has a sudden glimpse of how she would look as a corpse, as a moldering, putrifying thing in the grave, or as a grinning skeleton, or a very old, haglike woman. She feels herself a miracle far beyond her powers of comprehension and perhaps comes to herself with a start and shudder, or suffused with ecstasy. Can all these innumerable elements ever be composed or constellated into a consistent, harmonious personality? After her excursions or absences, the bud may make a sudden landfall in reality by finding that she is thinking wicked things, and feels the strain of the tether of conscience. What *tendron* has not at times feared she might be insane, possibly utterly depraved? In fact every one of her friends and she herself would pronounce her crazy if but a tithe of what flits and glints through her soul ever really came out into the daylight of consciousness, for even if she is normal, our psychology is utterly inadequate to know the ways of her soul and the laws by which it warps its way up and on to full maturity.

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[1] La Vie Mentale de l'Adolescence et ses Anomalies. Saint Blaise, Foyer Solidariste, 1910., 239 p.

In all these ways, amidst all these dangers, safe from all these abnormalities, and with all these activities and accouterments, some of which are assumed for the first time at this age and the rest are more elaborated then, the normal girl departs more and more from boys' plays and ways, and there is a physical touch-me-notness that makes her exempt more than she was a year or two before, from rough-and-tumble games and from boy boisterousness generally. She is now fairly a candidate for young womanhood, and nature has begun to train, coach, and prod her along up the steepening, old, well-worn but flowery highway which will land her, if she keeps on and does not suffer arrest or diversion, straight into the paradise of ripe womanhood, never so glorious as now and in this country.

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[1] See P. A. Sollier, Les phénomènes de l'Autoscopie, Paris, Alcan. 1903. See also Sante de Sanctis, Die Träume. Halle, Marhold, 1901, 256 p. See pp. 35–50. Also, L. Waldstein, Das unterbewusste Ich. Wiesbaden, Bergmann, 1908, 71 p.

CHAPTER X

MISSIONARY PEDAGOGY

Its Ideal—Religions that have and those that have no mission work—Paul—The conversion of the Roman Empire, of the Goths, Franks, Saxons, Germans—How the early church treated preëxisting eucharistic rites—How Balder became Christ—The Catholic missions in Peru—Views of Du Buy and Stoutemyer—Islamic missions—Lull, Xavier, De Nobili, Ricci—Jesuits in Paraguay—Inadequate training of Protestant missionaries—What it means to fulfill rather than destroy—Gibson's work—Place of education—Is it needful for non-Christians to take the Christian name—The spirit of the new mission pedagogy—Especially in the new Far and Near East.

"THERE are now 18,591 Protestant foreign missionaries in non-Christian lands, and the Christians of Europe and America gave last year for their maintenance and that of the churches, schools, and hospitals, printing presses, and other work under their care, $21,280,147. The stations and out-stations occupied aggregate 36,748. The number of definitely known adult converts and adherents is already 6,202,631, and is rapidly increasing," says A. J. Brown, writing in 1907.[1]

Under the influence of the New England Puritan home, in which in my boyhood itinerant foreign missionaries were often entertained, and whose thrilling tales of their lives among heathen and savages fired my admiration for the heroic and adventurous side of their achievements—and in a home, too, where, despite stern economies, foreign missions always received stated contributions—with several missionaries, too, among my relatives who often left with us relics of their lives among barbarians, it was perhaps not surprising that at the close of my freshman year in Williams College near the site of the old haystack where the foreign mission movement in this country began, now marked by a monument, and under the influence of Mark Hopkins, long president of the Board of Foreign Missions, and with perhaps a dozen sons of missionaries among my fellow students and others who have devoted themselves to this work, I, too, in the first flush of a new religious experience, nearly resolved upon this career. From the pulpit, in prayer meetings, and especially in the Mills Society, with its collection of missionary literature, we heard much of William Carey (1761–1834), the father of foreign missions, at sixteen a dissolute, sickly shoemaker, converted at eighteen, brooding over the condition of the non-Christian world, who in 1763 went to India and started the great work at Serampur, of Andoniram Judson (1788–1850), the father of American missions, at one time an infidel and an actor, but later converted and a missionary in India, where his hardships made him wildly ascetic, who fasted, prayed, spent days in the woods, made over his property (some $6,000) to the Board, worked among the wild Karens in the jungle, came home in 1846, married Fanny Forrester, and was finally buried at sea.[1] We also heard much of Goodell (1792–1867) in Beirut, who preached in six languages, translated the entire Old Testament, lost all he had in a fire, survived a plague, and whose work with the Armenians as a translator is sometimes compared with that of Wycliffe and Tyndale; Titus Coan (1801–82) and the wonderful galaxy of Christian enthusiasts who converted the Hawaiians; E. C. Bridgman (1801–61) in China; of Robert Moffat (1795–1883), who translated the entire Bible for the South Africans, and whose daughter married Livingstone; Livingstone himself (1813–73), whose work the world knows by heart; of W. G. Schauffler in Constantinople (1789-1883); W. M. Thomson (1806–94) in Syria, whose "The Land and the Book" (1859) is said to have sold like "Uncle Tom's Cabin."[2]

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[1] The Foreign Missionary, an Incarnation of a World Movement. F. Revell Co., N. Y., 412 p.

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[1] See Pioneer Missionaries of the Church, by C. C. Creegan, Am. Tract Society, 1902.

[2] There have been other names that are great in the history of this cause, e. g., J. G. Paton in the New Hebrides. (See his autobiography in three volumes), a man who thought smoking and non-observance of the Puritanical Sunday evils of the first magnitude, and who always insisted on Christian clothing and the

The very purest, highest, and strongest manifestation of the teaching instinct is found in the missionary motive. He who devotes his life, with all kinds of personal sacrifice, to the propagation of a religion among those who know it not, believes his teaching to be of supreme importance and burns with zeal to impart it. He feels that he has a priceless treasure which his hearers vitally need. If a teacher's impulsion is measured by the pressure in his own soul to give, or by the plethora of the message he is surcharged with, which we may call his positive potential, the missionary surely ranks

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extirpation rather than the correction of native dances, and urged all to bring their idols to be burned; A. Mackay (see his biography by T. Whitaker, N. Y., 1893), the missionary hero of Uganda, who wasted much of his life in antagonizing the Catholics; G. L. Mackay (see From Far Formosa, N. Y., 1896, 346 p.), who insisted that not only idols but the ancestral tablets be given up, declaring that the venerable cult of ancestor worship "is indeed the most stubborn obstacle the Christian has to face," among those who hold that to neglect one's ancestors in the spirit is the most inhuman of crimes, but he admits, "the savages are singularly free from many moral and social vices common among civilized races"; J. C. Patteson (1827–71) in Melanesia, slain with five wounds to atone for five of his companions; Griffith John and his famous Hanko mission; Neesima (1843–90) in Samuri; (Biography, by A. S. Hardy); W. M. Taylor (1829–95); S. A. Crowther (1808–91), a negro who established a mission at Yoruba; J. Williams (1796–1839), who built the first mission ship; R. Logan (1843–87) of Micronesia; W. Butler, who in India with 86 others held a pass against 3,000 Sepoys; McKenzie in Labrador, etc.

See also Dux Christus, by W. E. Griffis; Rex Christus, by A. H. Smith; Lux Christus, by C. A. Mason; The Miracles of Missions, by A. T. Pearson; the Missionary Review of the World (monthly); The Missionary Monthly; Encyclopedia of Missions; Moravian Missions, by A. C. Thompson; The Cobra's Den, by J. Chamberlin; Latin America, by H. W. Brown; Geography and Atlas of Protestant Missions, by H. P. Beach, N. Y., 1901, 2 vols.; Christian Missions and Social Progress, by J. S. Dennis, N. Y., 1897, 3 vols.; Missionary Principles and Practice, by R. E. Speer, N. Y., 1902, 552 p.; Two Thousand Years of Missions before Carey, by L. C. Barnes, Chicago, 1902, 504 pp.; Modern Missions in the East, by E. A. Lawrence, N. Y., 1895, 329 p.; Paganism Surviving in Christianity, by A. H. Lewis, N. Y., 1892, 309 p.; A Study of Christian Missions, by W. N. Clarke, N. Y., 1900, 268 p.; Short History of Missions, by George Smith, N. Y., 1894, 238 p.; Ecumenical Missionary Conference, New York, 1900. N. Y., 2 vols.; A History of Missions in the Near East, by Julius Richter, Lond., 1910, 432 p.; Mission Problems and Mission Methods in South China, by J. C. Gibson, Lond., 1901, 332 p.; The Heathen Heart, by C. N. Moody, Edin., 1907, 253 p.; Mission Methods in Manchuria, by John Ross, Lond., 1908, 277 p.; A History of Christianity in Japan, by Otis Cary, N. Y., 1909, 355 p. (Protestant missions). A History of Christianity in Japan, by Otis Cary, N. Y., 1909, 431 p. (Roman Catholic and Greek Orthodox missions).

above all others. He does so no less in his sense of the aching void, need and hunger, conscious or unconscious—i. e., the negative potential—in the souls of his hearers. No teaching begins to produce such effects, both present and remote. Thus the true, successful missionary is the ideal pedagogue. His message transforms individuals, tribes, and races.

At its best, this work involves the very highest of human qualities; a simple and effective philosophy of life; a rare psychologic power of sympathetic insight into the souls of a very different grade of culture and ethnic type from his own; a quick sagacity as to things to avoid, both in speech and conduct; a command of a whole arsenal of resources which no teaching can supply; a fervor of belief uncooled by doubt; an infinite plasticity to become all things to all men; and a readiness to take risks of life and death and to immolate himself upon the altar of his cause at any time, if need be—an *ensemble* of powers which only very few people possess. In its largest sense, no teaching has ever done so much to mold history or change the destinies of nations and peoples. The records of its greatest achievements constitute the most brilliant pages in the story of education and are fittest to set fashions and give all other schooling this spirit, and to inspire by its example. But, alas, until the new insights and methods which only lately began, no kind of teaching ever lapsed from so high to so low an estate or became so ignorant and so injudiciously applied. Fortunately, it has never entirely lacked the one essential thing, viz., zeal. Thus, though handicapped with more failures and more tactlessness than any other pedagogy, it has never lapsed to mere mechanical wooden routine, and is rarely engaged in by those who do not care for or believe in it, yet to-day it groans and travails in labor for a new dispensation. It needs a larger light, a more comparative perspective, a radical reconstruction; indeed, nothing less than a new soul.

A glance in retrospect must suffice here. Many religions never had any mission features. They were simply tribal or at most national. They were evolved by the stirp that holds to them, and they exactly fitted its nature and needs and never spread to alien races or made any attempt to do so. Such religions were often felt to be tribal palladia only. Even

Zoroastrianism never spread, but remained the highest expression of the soul of the race in whom it originated. Other religions extended by conquest, like the Mohammedan, and were forced upon subjugated people. Still other races, when overcome by those that were stronger, gradually and spontaneously accepted the cult and faith of their conquerors. A tribe subjected by a stronger one often feels that its own gods are weaker, and so they are discredited, and that those of its conquerors are mighty and so they prevail. Occasionally vistors seem to cherish rancor against the religion of their victims, and hence many devils are really exgods, thus degraded. Conversely, sometimes the conquered give their own faith to the conquerors, as they may also some of their arts, industries, names, words, etc. Religions may slowly diffuse on their merits without any aggressive efforts. This has been best illustrated by Brahmanism. The first great missionary religion was Buddhism. The Emperor Asoka, some three hundred years after the death of Buddha, gathered his teaching and formulated his tenets, with the aid of a scribal college, and disciples went forth to give the world the benefits of this great faith. One of the very greatest of mission successes was thus wrought by the Buddhists in Japan in the ninth and tenth centuries, by which the Shinto monks were converted into teachers, and temples into schools; a great impulse was given to painting and poetry; myths, folk-lore, and tradition were reinterpreted on a higher plane, and universal brotherhood was proclaimed. This faith has always fascinated quiet, contemplative souls of all stocks as few foreign religions before or since have ever done. Perhaps the best type of Buddhism to-day is found among the Burmese, far removed geographically and ethnographically from those whom Buddha taught. Confucianism has been extended and confirmed by teaching, but it is not entirely a religion nor has it ever been comprehensively propagated among alien races by missionaries, widely as it has spread. Mohammedanism appealed to aggressive, warlike races, the opposite in disposition to those Buddhism most affected. Again, the Jews, in their early days, admitted the sons of strangers, but in the days of Ezra limited their membership to the descendants of Abraham. Their mission policy was broadened by Jonah and by the prophets. The Jews have always felt that they had something to say to the world, but their chief attitude toward the polytheism and idolatry about them was abhorrence and extermination. Later, Alexandria became the seat of active literary propaganda. Ritual was simplified and Scripture translated, explained, paraphrased, and the Jews learned how to recommend it to the Romans, and especially to the Greeks, at least far enough to mitigate somewhat their animosity. Still later they admitted proselytes of two grades and often made conversion to Israelitism profitable. Thus they often won respect where there was no adherence or desire to secure it on either side. In general, the Hebrew faith has gone with the Jewish blood, and proselytes if sought or won have rarely been as respected as those born into the faith. Perhaps in no other people in history have cult and race been so closely bound together. The Jews rejoice that Jahveh chose them alone and no others, and yet in the early post-Accadian days their race was amalgamated from many diverse stocks.

Jesus was the great expounder of the universalistic tendencies in Judaism, which he sought to free from all local and temporal limitations. He realized vastly more than any of His followers ever have done that to be diffused by peaceful, natural methods, a religion must be more or less radically transformed. His instructions to His disciples, and far more, His directions to the Seventy especially, point to the greatest expansion as well as to the greatest change. Paul addressed himself chiefly to the Gentiles, and in his journeys chose strategic centers. He broke with the Jews by proclaiming salvation to be by faith and not by works of the law. He had great power in shaping the sentiments and in organizing societies of believers, and in teaching charity, diffusing education, teaching how to heal, etc. The spread of Jesusism owes vastly more to this greatest of missionaries than to any other individual, and was radically transformed as well as explicated by this chief of the Apostles, who could become all things to all men. Perhaps he idealized Jesus all the more because he had never seen Him. Who can say that he did not take great liberties with the sayings and person of his Master or that if another great modern missionary genius would do this again as wisely and as well as he, we might now have a new dispensation of Christianity in the East and yet another in the West? It has even been suggested that if Paul were not in the Canon, or if his life and writings stood forth outside it as an example of what an earnest, able man could do in planting a religion among alien races, his influence upon mission work would have been now even greater than it is. What our faith chiefly needs to-day is a master mind, fortified with modern learning and charged with zeal and with a positive afflatus for original reconstruction, which would restate the fundamental truths of Jesus in a way to fit the modern occidental cultivated mind; and another one, or perhaps three, able to change the Gospel enough to fit the nature and needs of India, China, and Japan, as Paul adjusted the teachings of Jesus to the leading minds of the Greek cities he visited. The church ought to believe that other Pauls are still possible, and that they may one day arrive and free the Christian world from the bond of dogma and wont, and extend its quintessential doctrine of loving and serving God and man to the uttermost bounds of the earth. Until this great work is accomplished, Christendom will remain a geographical expression. The opening of the East thus constitutes a new and unprecedented call which gives the church an opportunity such as was never before open to it. Will this call of the Divine Pedagogue, as the Holy Spirit used to be named, be now heeded?

Would that we knew more of the details of the conversion of the Roman Empire; of the Goths by Ulfilas, the first translator of the Scripture into a vulgar tongue, whose work saved the church when the Goths later sacked the imperial city; of the methods by which Clovis, wild of heart and little sensible of the inner meaning of Christianity, brought over the Franks; of how the forty monks under Augustine wrought in England, backed by Gregory at Rome, a work comparable in importance to that of William the Conqueror; of the ways of Boniface, Alcuin, and Charlemagne, the former seeking to persuade the heart and the latter enforcing external conformity; of the embassy of Vladimir to find the best religion and its adoption, because he was so impressed by the gorgeous ceremonials of St. Sophia that the Christianization of Russia followed. The magic of relics, the splendid pageantry of processionals, and music, the gorgeous vestments, the supposed miracles, the turning of the tide of battle at critical points, political policy, pious frauds, material prosperity, the influence of family ties and marriage, argumentation and about every sort of influence has been used with success in evangelization. The gospel has worked its native charm upon people and thus gradually leavened kingdoms; and conversely rulers, by edict and proclamation and collective baptism, have decreed conversion and have enforced it with all the power of thrones. The church inherited the traditions of the Roman Empire, and spiritualized and made the most of them, so that Augustine's City of God was only Rome sublimated. The native charm of the gospel has been helped out by the counsels of sagacious political leaders and every sort of strategy, as Gibbon has shown. Thus the modern missionary is in a great line of succession. Even the church has not been zealous to conserve the details of the methods of the early propagandists, from the age of Constantine to and including the conversion of Russia in the tenth century. The heretical sects which failed to convince the church often sought to bring over pagans, and this helped to extend its power. Conversion in mass seemed to be the rule, and individual conviction was exceptional and is seen chiefly in the case of leaders. There were miracle and vision for the few and constraint and authority for the many, and catechization and theology and gorgeous ritual were the chief methods of establishing the faith. Each great order of the church evolved its own methods of appeal, and thus adjustment was made to the different needs of races and persons till Protestantism eliminated and simplified all by its appeal to personal faith. All these modes should be carefully studied by those fitting for mission work.

Christianity owes many of its best elements to the interpretation on a higher plane of preëxisting religious ideas, even baptism, the Eucharist, and the doctrines and methods of salvation, the piacular sacrifice not excepted.[1] It was by using rites and ideas that were established and commonly understood, by grafting onto the great mysteries of all the countries about the eastern Mediterranean, that the message of our Lord was accepted. No religion is effective without sacraments, and the religious instinct needs, and indeed can understand, little but mysteries. Often faith sees sacraments where none exist. So in the field of thought, Greek philosophy, as Hatch has shown, had very much to do in shaping Christian doctrine. Philo wrought out the doctrine of the logos as heavenly manna, a cloud in the wilderness, convictor of sin, etc., before the New Testament. While some of the church fathers rejected philosophy, many had to learn it for apologetics and were themselves profoundly molded by it, so that some regarded Plato, e. g., as inspired, and urged that he had borrowed from the Old Testament, and that other Greeks before Jesus had anticipated him and were saved. All know the profound influence of Mithraism, Epicureanism, and Stoicism in preparing the way for Christianity and in developing a sense of the great corruption which prevailed and of man's higher destiny. Thus Christianity is the great adapter and adopter, and its merits consist in interpreting and revealing ever higher meanings.

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[1] See Dr. J. A. Magni, The Ethnological Background of the Eucharist, The Am. Jour. of Relig. Psy. and Ed., March, 1910, vol. 4, no. 1–2, pp. 1–47.

The Teutonic faith was, perhaps, the greatest of all factors for centuries in the diffusion and deepening of Christianity. From the Eddas on, that faith was chiefly concerned with the struggles between good and evil principles, preformed by the relations of day and night, summer and winter. The former gave, the latter destroyed, life. There was constant warfare from the vegetable world up, and the only solution will be a new dispensation and a great judge by whom each will be given its deserts. Balder was the purest and fairest, in whose presence nothing bad could exist, but he was doomed, and even Odin could not save him, although he was to ultimately rule over a new world in which there was no death. To avert his murder, everything was pledged not to hurt him save the mistletoe, which, after the method of myth, was the arrow with which Hödr pierced his heart. Then the world was full of evil. The death queen consented to release him only if all things should weep, and so they did save one. Then came the wars with Loki and the giants, and even Odin is vanquished and evil reigns in Asgard. Nevertheless, hope survives of a new heaven and a new earth when Balder shall come again from death. This was the psychic matrix which Christianity found in the Germans, comparable with the Messianic hopes of the Jews, and to it Christianity came as a fulfillment. Balder became Christ, and Hödr Judas, as among the Franks Siegfried became St. George, and among the Russians the fire god Perun, driving the chariot of the sun, became Elijah; Apollo, St. Belius; and Lodo, the Russian Venus, the Virgin. Thus gods and goddesses were supplanted or changed into saints and martyrs, and this process of substitutions and transformation went on. The sacred springs of the Picts were blessed by St. Columba. If pagan temples were destroyed, churches were built on their sites, and eclipsed them in beauty and embodied many of their features. The old feasts were reconstructed. The solstice was celebrated as yuletide, the nivernal equinox became Easter in the new calendar. Pagan rites were full of symbols that needed interpretation, and their myths were allegories. These faiths were vital and were given still more vigor by the new Christian interpretations, helped out by pictures and statuary. Jesus in His parables was the great story-teller. The Old Testament, particularly, was transformed as an allegory, and the apocryphal literature is full of it. Thus the church sublimated the methods of the barbarians and their folk-lore was worked over into Christian legends. The Christian mind from Sigmund to Dante and the "Pilgrim's Progress" was most impressed by this method; so the Holy Grail reinterprets the very core of Teutonic myth, which spiritualized the martial temperament, feudalism, and chivalry which was now turned against sin. None but the pure could see the Grail or sit upon the seat perilous. The entire quest of this vessel is the mythopœic equivalent of the Balder conquest. Only the Grail can cure the king's fatal wound. There is an intense longing for the day of release. Parsifal and Sir Galahad represent virtue and bring the boon of salvation. The latter rescues the hero from the attack of two knights called pride and covetousness because he did not confess, and in the former the beautiful heroine represents the dalliance of the church with sin, with safety only in the cross. The German soul must have its pathos and an emotional baptism.

So, in Peru, the Catholics rededicated the pagan temples to St. Francis and showed a more splendid ritual, so that it was easy to pass from the feasts and festivals of one to those of the other. In Mexico the pagan temples were often used, only substituting images of the Virgin and of the Saviour on the altars in place of idols. The cross, which was worshiped as an emblem of rain, became a sign of salvation. So in Formosa, as Mackay has shown, filial piety due to ancestor worship has been turned to splendid and tactful account. The Karens have legends easily thus convertible, and in South Africa the folk-tales are occasionally made into apparatus for moral and religious training. But, as Stoutemyer says, "as compared with the wonderful reinterpretation which Christian thought wrought in the Teutonic folklore, the efforts of modern missions have little to show, and perhaps we must now wait till the native soul of the East shall give us a new interpretation of Christianity." Aryan methods are more or less similar in other traits, as comparative mythology shows, and Christianity in all these countries is to an extent hitherto unexpected only the idealization of preëxisting and more indigenous material. A folk's soul cannot be easily transformed, nor its ancient content transmuted into something different. The world is full of persistencies, for religion is rooted in racial heritage, and every new religion must appear to be a reinterpretation on a higher plane of the old one. If we use theological terms, we must say that God is in all faiths. The religion of the Teutons, like that of the Jews, was fulfilled in Jesus, whose religion must always supplement rather than supplant the native faith to bring true redemption and regeneration. It must fulfill and not destroy. They are fragmentary and need to be supplemented.

Du Buy, from a study of five great religions,[1] concludes that Mohammedanism, which makes short shrift with every kind of polytheism, and which is to-day making such marvelous strides in Africa, is especially adapted to that stage of childhood in individuals or races which is just emerging from fetichism and idolatry. God is the supreme king, demanding absolute obedience, and Islam regards trinity as tritheism, which should therefore not be stressed. Mohammedanism does not greatly stress purity, forgiveness, humility, sacrifice, or toleration. Bosworth Smith thinks Mohammed comes next to Jesus, although at a long interval, as a benefactor of the human race, with wondrous power to draw men and fill them with His spirit; that the missionary should never make believers in Him disloyal to their prophet, but should be content with teaching the higher Christian ideals of life, even though the Moslem remain a true follower of the founder of his faith. Islam gives the negro, who once accepts it, complete entrance to the faith, without loss of self-respect, welcomes him in any mosque, and regards him as fit for any office. Christianity does not, in fact, create this sentiment of equality, and never welded diverse races as does the Mussulman faith, which has marvelous power to fuse heterogeneous races and appeals most strongly to idolators. The Mussulman missionary uses every local custom and law, and every virtue, and has thus his marvelous power of assimilation. Devil worship is only gradually eliminated, and the African does not have to pass through a stage of being stripped of his faith, but grows gradually into the new one. The Saracen culture seems to have lapsed from its highest condition and to have lost, if it ever had, interest in education for the people. The best apostles of the Koran acknowledge decline, but hope that the recent movements in Turkey and Persia, with the pan-Islamic agitation, indicate a great awakening. Blyden, a very able Christian negro, urges that in West Africa the young Mohammedans should be trained in all Western culture and given the elements of Christianity, but in a way to make them stronger and better Mohammedans, and believes they can thus most effectively gradually assimilate the best in Christianity without violent rupture with their environment. Sir Harry Johnston[1] thinks the "New Testament might be made the basis of all religions, the common denominator, with liberty to each race and tribe to tack on what superfluous adornments they choose."

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[1] Am. Jour. of Relig. Psy. and Ed., vol. 1, no. 1, May, 1904, pp. 7–29.

The Islamic propaganda always has and will be a marvel from its very start. It welded the scattered Arabian tribes into an invincible army, impassioned for Allah. For a hundred and ten years, until the western wing was hurled back by Martel, its growth was unprecedented. Later, after the conquest of Constantinople, in 1453, the West was again in danger. Its conquest was by the sword, but that, we must not forget, was wielded by an impetuous faith that few religions have ever instilled into the souls of men. To be sure, the Byzantine church was corrupt, superstitious, and oppressive. It was hard to fill even the bishoprics in North Africa. Great Arabs not only absorbed but extended Western learning, especially in mathematics, astronomy, medicine, and philosophy, and made a splendid period for their faith, to which the young Turks are now harking back and pointing to with pride as showing what their faith can do. Proselyting by the sword penetrated far East. Bengal, for instance, which had no religion, was easily delivered by Islam from "caste, contempt, and Hebrew tyranny." Mohammedans know how to use all political and social methods. In China, for instance, its emissaries are merchants who settle, marry natives, wear the queue, adopt Chinese customs, and do all expected from officers of the government. In the Malay Archipelago and Philippines they use the language and customs of the natives, even purchase slaves to add to their influence, set examples of industry, and often mask zeal for their religion under business enterprise and lust of gold. In Sumatra they accommodated by allowing natives to worship the spirit of their ancestors as saints already in Islam, saying that their long dead forbears now desired them to become Moslem. The missionaries to the Kaibils in North Africa went in rags, in small groups, lived in caves like monks, and slowly won their way by their knowledge of medicine and industries, and led up to the teaching of their religion without naming it. Thus North Africa, which had been a stronghold of Christianity since Augustine, was Mohammedanized. Arabian merchants so conform that they are not considered strangers. They were always self-supporting, were not known as missionaries, had no supervision, and while some of them drove an active business in order to live, they "produced the impression that they were not preachers but traders, while in fact they were not traders but preachers." They often brought weapons and sold them to potent chiefs who impressed Islam, and this rendered them superior to their enemies, who used the old weapons. A potent missionary method is the pilgrimage to Mecca, which gives great prestige and which is told of for a lifetime afterwards. Besides these unorganized there are also organized modes and specifically missionary sects, one of which, the Shlites, originally simply partisans of Ali and his descendants, originated in Persia in the eighth century, which wrought miracles for the superstitious, won the devout by piety, and the mystics by revealing hidden meanings. To the Jew they declared that their Messiah was coming and to the Christian that the Holy Ghost was about to reign, and to all preached the coming of Alï, the Great Deliverer. Among oppressed people, the missionaries dwell upon the cruelty of their conquerors; in working among the Jews they show scant respect for Christians and Moslems, preaching only that Ali is the Messiah. In working with the Christians they dwell upon the obstinacy of the Jews and the ignorance of the Islam, and profess reverence for the chief articles of the Christian creed, cautiously intimating, when the time comes, that a few things have been misunderstood or that Ali was the true paraclete. In India he is the promised tenth Avatar of Vishṇu, who was to come from the West. In West Africa are two monastic orders, one of which has been active since the fifteenth century, but very active in isolated regions during the last. These emissaries go as traders, scribes, readers, vendors of amulets, schoolmasters, and when they have a little band of converts organize them into a center. Their methods are all peaceful. Most of the teachers of the Soudan are of this sect. The other was founded in the eighteenth century in Algeria and uses the sword only in extremity. There are sects for the purification of Islam from its own errors and others to free it from the dominion of infidels. The latter has developed pronounced hostility to the Kaffirs, and after a universal holy war under a great leader, a purified Islam will be reëstablished throughout the world. Each adherent vows to abstain from luxuries, wine, and vice. They often have a secret code. Many a soldier has enlisted solely from a missionary motive. One writer thinks seventy-five per cent have enlisted for a religious motive.

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[1] Quoted by Stoutemyer in an unprinted Clark thesis to which I am much indebted at various points throughout this chapter.

From the eleventh century the Crusades were for a long time the chief missionary endeavor, and despite the vast losses, little was accomplished in converting Mohammedans. Lull made an epoch-making effort to convert Islam to Christian philosophy and theology, and sought to use the geography and language of the Saracens. He anticipated Loyola and Duff in advocating schools to teach Saracen language and literature to fit missionaries to meet Islam on its own grounds. And this led to chairs of Oriental literature in Paris and Oxford and Salamanca in 1411. Lull even proposed a parliament of religions for open discussion with Islam. The Inquisition, which "held Europe in a theological quarantine," profoundly influenced mission work, for it made infidelity a crime punishable in this world as well as in the next, and the heathen were religious waifs if not criminals. As the sword was successful in evil causes, why not in a good one, when it was allied with the cross? In Mexico and Peru, conversion and conquest, monk and soldier, went hand in hand. After forced conversion, the Aztec temples were consecrated to Christian worship. Native images were deposed for those of the Virgin and the Infant Jesus. The natives conceived that their gods were vanquished and were impressed by the majestic ceremonials. Doubtless the conquerors sincerely felt that, violent though the means they used, eternal blessing was conferred.

Xavier was first and greatest of all the Jesuit missionaries. Despite his scholarship and enthusiasm, he never himself learned the languages of the people for whom he wrought, but had interpreters and translators. He gathered boys to the sound of the bell on the street, taught them prayers and rituals, twice a day, and baptized all who believed, sometimes cities in a day. The government appointed overseers to instruct the people in the articles of faith. Sometimes the people were oppressed by Mohammedans. The Portuguese arms were invoked by others against enemies and baptism was the price or the reward. Xavier advocated that viceroys should be constrained by fear to make converts, and they sometimes rewarded conversion by government offices. Many helpers were sent, often whole regions were converted, and when the mission army moved, the Brahmins easily reconverted their people and were therefore visited with condign punishment.

De Nobili was Xavier's greatest successor. Evangelization had become part of the government policy. He realized that he must not assail the caste system, and so withdrew from all contact with his country and slowly made himself an orthodox Brahmin, mastering the native language and Sanskrit and studying profoundly. He conformed to all native customs and rites, doctrines and penances, claiming to be a Brahmin. Although his lineage was challenged, he hid all traces of it and made his debut with mystery, receiving only visitors of highest rank, and discussing philosophical questions. He required no convert to abandon the old form or break caste, but reinterpreted their symbolic customs. He was very successful and found the spiritual law embodied in the fourth and lost Veda, which he claimed to bring, which was purely spiritual. This new or new-old Veda, he asserted, had been forgotten, and he would restore it as containing the essentials of Christianity. The very Brahmins confessed that they had lost this spiritual law which he had come from a remote country to proclaim.[1] Thus his method was not exoteric, like Xavier's, but esoteric. In all externals, he made himself a Brahmin among Brahmins. He was not, as he claimed to be, a Brahmin from Rome, but was of noble birth there. The severest criticism made against him is his defense of caste, and many think that here his conformity went too far.

The first great propaganda of Christianity in China was by the great mathematician and scientist, Ricci, who, despite the hatred of foreigners, was welcomed and admired for his instruments and his knowledge. He tolerated everything tolerable, thought the Chinese god identical with that of Christianity, and ancestor worship with the masses for the dead and the adoration of saints. He did no open mission work, but only insinuated those doctrines not opposed to the Chinese belief. He went as a philosopher rather than as a priest, and as a literary man rather than as a preacher. Working his way to Pekin, he bribed and importuned his way among officials by means of his instruments and skill, and finally gained audience with the emperor and an appointment with pay and the privilege of opening a college. Here his lectures were unobjectionable, although he did instill some elements of Christianity. He attracted the literati, clothed Christ in an alluring garb, reconstructed the calendar, perfected a map of the world, published works on science and morals, and evolved a catechism. Although he did build a number of churches, his work was more political, and he was regarded not as an emissary of another religion, but as a great literary man from the West. He thus became indispensable to his government and spread the faith.

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[1] Marshall, Christian Missions, vol. 1, p. 221.

Adam Schall succeeded him. He was an astronomer and musician, set the psalms to music, and, when insurrection threatened, built a foundry and cast heavy field guns, became the tutor of the emperor, was president of the mathematical tribunal. Verbiest followed his methods and obtained great success, was an astronomer who could use astrology, a mathematician who could make guns; but astronomy was the great method. Rival orders were shocked when they found that the Jesuits had been so perilously near rites like heathen idolatries, and Franciscans and Dominicans bitterly condemned these methods. They, however, succeeded in placing the Christian faith in disrepute and were persecuted, else China might have to-day been Christian. Although there was great accommodation and some deception, this was absolutely necessary in China at this time.

Another brilliant mission chapter of the Spanish Jesuits was in Paraguay, where they went beyond the armies and up to 1602 traveled from tribe to tribe and induced the Indians to take settled abodes. There was great oppression and enslavement by the Spanish, and so the Jesuits sought to make a Christian state and to bring a territory of which they alone knew the riches into subjection to the church and to Spain. They persuaded the Indians to reside in villages. This they did the more readily because in union they could defend themselves against the oppression of the Spanish Government. Some thirty of these settlements were organized under a superior, with a grade of subordinates. The towns thus built were a square, with church and storehouse at one end and the Indians on the sides. The churches were magnificent. The fathers also introduced various handicrafts, agriculture and stock-raising, cotton, tanning, coopery, cordage, bed and cart-making, etc., with arms, powder, musical instruments, painting, and with so much weaving and spinning per week for the women. The natural indolence of the people was extreme, so each morning they were marshaled with great pomp and music to go in procession to the fields at sunrise, with the saint borne aloft and with shrines at intervals, where they prayed and sang. The group grew smaller as individuals dropped off to work, until priests and acolytes returned alone. Thus, too, they returned for their meal and siesta and again went to work. Nowhere has life, perhaps, been so completely regulated in all its details. All products went to the fathers and were doled out from the common storehouse. Those who refused to work received no food. Costly articles were imported for worship and the surplus went to Spain. The Indians loved festivals, and so saint days were elaborately celebrated. The worst penalty for a culprit was to be debarred from these and from holding office, and there was great competition in splendor, in gayety, and fêtes. At the age of five boys were under the charge of alcades and worked or were taught until the middle of the forenoon. Perhaps this was the very best system for the Indians just at that stage. It aimed to make them contented. It taught that the mission property was their own and the king had decreed their freedom. In the villages there were perhaps a hundred thousand inhabitants, and between 1610 and 1778 some seven hundred thousand had been baptized. The trades were indigenous, and this semi-communal system was isolated from Europeans and from pioneer corruptions. The fathers' authority became absolute. There was little individual adjustment, no property interest or independence, and the neophytes became morally weak. Thus when the Jesuits were replaced by the mendicants, the Indians could not adapt, demoralization drove them to remote haunts, and they were easily swept away, until now only ruins are left.

The order was suppressed in 1769, and the Dominicans extended this work in California, where also the Indians were gathered into villages, paid a small land and crown tax, could select their officers, and had the same right to the soil. First a small building was put up, with banners and pictures and gifts of trinkets and food, and the pictures of the Virgin were explained. Sometimes wild Indians were captured and brought in by force. The convert after his vow was considered almost a part of the mission property and the priest was his parent. For slight offenses he was punished, and for grave ones turned over to the governor. There was a ceaseless round of social, religious and industrial duties, and stock-raising, agriculture, and orchards. There was a chain of twenty-one of these missions extending six hundred miles along the coast, till the friars were removed with some thirty thousand Indians. The decline began in 1834, when the United States came into possession, and since then a majority of them have retired to the mountains. Some of the property was sold, some rented, and there are many claims hard to adjudicate. There was too much dependence, and yet these very methods did not differ very much from the government schools at Carlisle and Hampton. Perhaps a longer period and modern improvements would have abundantly justified methods so very astutely planned. The same methods have been used with some success among northwestern tribes—e. g., by Desmet.

It was once the custom of missionary boards to send out almost all who wished to go, with little regard to health or training. Many smaller denominational colleges have courses on missions. The volunteer movement has greatly extended and improved our ideals in this field, and some medical and hospital training is usually now required. What is needed is more instruction in the condition of the people among whom they are to work. Our theological schools are inadequate and supernaturalism of a specific type is overstressed, while comparative religions, theology, methods, and mission history are slighted. Stoutemyer, who examined the catalogues of nearly three hundred of our colleges and universities, finds that present-day history is very rarely taught, although some of the southern courses include the problem in history of the negro, and the Pacific institutions often give courses in Oriental problems. The most neglected, and perhaps the most needed, are the departments of anthropology and ethnology, without which there can be little sympathy with, or understanding of, primitive man. The dogmatic aspects are overstressed; other religions are misinterpreted, and their defects are magnified. Hill[1] points out the gross neglect of practical church problems and social life in our Protestant theological seminaries, especially those not attached to large universities. He even advocates a university of religion. This should, at any rate, teach us not to go to the Mohammedans with a gospel bound in pigskin, or to India with one bound in calfskin, and we must no longer teach that in Burma one finds only "folly, blindness, and superstition," and that among Confucians "every vice is tolerated, if not sanctioned." Mission work must certainly be a part of pedagogy in every school and college, just as the psychology of lower races should be included in every course of psychogenesis. Races and religions represent different stages. Every factor of indigenous culture should be utilized, if possible, and reinterpreted on a higher plane. We should admit that the Catholic missions have been far more successful with primitive races, even if the Protestants have done better among more cultured people, and that a higher culture is prone to enforce precocity. The Catholics should lay more stress upon freedom, and the Protestants upon the dramatic and emotional elements.

If we followed du Buy's four types of Protestantism—Calvinist, Methodist, Baptist, and Unitarian—which he deems suited to different periods of development, we find that Methodism, with its strong emotional appeal, the Baptist, with its independence, the Calvinist, with its stern effectiveness, appeal to the young and to early manhood. The feelings and authority are emphasized. The Unitarian appeals more strongly to reason. Catholicism is based on authority, and its rites and ceremonies are surcharged with mysteries which reach the heart, while Protestantism is less effective in reaching the symbolic and dramatic tendencies of childhood. It is, indeed, rather surprising that Protestantism succeeds with the young as well as it does, for it lacks all dazzling pomp and makes little appeal to the imagination, but requires more refinement and maturity. Catholicism has made far greater use of native faiths and customs, but its missions make less use of medical agencies. The congregational government, too, is hardly suitable to primitive people, and brings a sense of independence rather than of dependence. The Protestant convert studies his own Bible, thinks, reasons, while the Papacy emphasizes authority. Most impartial Protestants admit that the Roman missionaries have dealt best with our American Indians, but they have had almost no success with Mohammedans. The persecutions in Spain are said to have depleted the nation of its freethinkers. We need not here touch the much mooted question how the German, Swiss, and Canadian Catholics and Protestants differ, or whether the South American people have been affected by the church, or which is increasing fastest and has the best schools. Each has much to learn from the other. It is not surprising that Catholicism has been most readily accepted by the descendants of those who were once under the Roman Empire, and that the northern Teutons, who were never conquered by the latter, refuse to accept the former. In 1099, when the Crusaders captured Jerusalem, they slaughtered men, women, and children, some seventy thousand; and in 1187, when the Mohammedans recaptured it, they made no massacres, permitted the Crusaders to ransom themselves, and eastern Christians to reside there in peace. The French in Canada respect native rites far more than the English. The Anglo-Saxon can never forget his race, and does not intermarry or accept the native point of view. Russian missions are controlled by the state, the interest of which they must never compromise. The French sought to break up the Algerian tribe and destroy communal customs and in Indo-China sought to establish the entire legislation of France, in both cases with disastrous results. No nations, says Dike, have "more generally destroyed the native races with which they have come in contact than the English," even where they have striven to conserve them. The problem of conserving the backward races was never so pressing and is greater than that of converting them. It is very difficult to preserve their simplicity in contact with civilization until they are able to develop naturally. In Africa the Protestant missionaries tend to desocialize and disintegrate and live above the natives and maintain their own mode of life, and their connection with the home country, and do not sufficiently conform to native ways of thinking, feeling, and living. They have an exact type of Christianity that fits them, and often they unwittingly destroy rather than fulfill. The negro, especially, has always been given a foreign model to copy, until he has almost lost respect for his industries, traditions, customs, and even language. This involves loss of self-respect and makes a nondescript race without a country. Freed from tribal restraint, a native is lost, at least for a time. Individualized, they not infrequently lose economic independence. Civilized methods are substituted indiscriminately; overinsistence on clothes, in torrid regions, has been found to increase mortality and to cause immorality. Despite the evils of polygamy, there are some things in some lands to be said in its favor. General Gordon thought he could evangelize Africa if he might leave polygamy untouched, but this was refused. It dies, as it is dying in Turkey, from economic changes. The factors of assimilation are, as Woodrow Wilson points out, the number of points of contact between races, the difference in the planes of culture, the intensiveness of race consciousness, coercion and passivity, the economic relations between the advanced and retarded peoples, industry and indolence. The strain of a higher civilization often works wreckage, and education and religion are often pitted against the entire body of native life and thought. Some mission classes are now wiser and use the vernacular only in the lower grades, even where different tongues are found in every school. The African chiefs should be trained to make them useful rulers in their own land under the conditions that there prevail. Pictures, even in schools, are sometimes regarded as abominations by Mohammedans, and Joaquin Miller wishes the natives protected in real reservations away from the "moral cannibalism where souls eat souls" through centuries of dishonor. The brilliant work of Duncan was checked by the bigotry of the Anglican church, which declared he was teaching a mutilated Christianity, and so persecuted him that he was obliged to move his settlement, at great labor and expense. Miss Kingsley thought most African traditions should be encouraged and the good in them strictly conserved, and even suggested schools for the medicine men, with progressive amelioration only at the rate at which it could be assimilated. These arts and crafts, too, need conservation and development.

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[1] Hill, David S., The Education and Problems of the Protestant Ministry. Am. Jour. of Relig. Psy. and Ed., May, 1908, vol. 3, no. 1, pp. 29–70.

We cannot push tenth- or thirteenth-century people at a bound into the conditions of modern civilization.

In surveying present methods, we must remember that for Protestantism the field is the whole non-Christian world, but for Catholicism the non-Roman world, and is addressed to all not under the dominion of the Pope, even Protestants being regarded as heretics or schismatics. Hence the world is divided into two types of provinces, those of the holy chair and of the propaganda. This work is controlled from Rome and there is little overlapping and few gaps. Under the Protestants we find sectarian demarcations carried into foreign fields and there is little coördination and much friction. Now, however, the tendency is interdenominational, toward federation and coöperation, and a mission well established in a field is left to the responsibility of its evangelization. The fields attractive to several are often allotted. Natives under other faiths care little for our distinctions of creeds, and the question now is how much can be given up, retaining efficiency and essentials. There must certainly be coöperation and comity in printing, in medical and educational work, as to employment and pay and rate of transfer of members. In China now all medical missionaries are in one and all educational missionaries in another association. It would seem as if the time was at hand when Catholics and Protestants should respect each other and coöperate for the Christianization of the world.

As to beginnings, Gibson talked with villagers about crops and business, and finally told them that he came to tell them of his religion and preached on the ethics of Jesus and appealed to them for personal relations. Cochrane called a crowd of workmen at night with a little organ and the singing of hymns, used lantern slides, and then set forth Christ. He found it difficult to meet the demand of those familiar with idols, "Show us your God." He found they were prone to worship his pictures. Again, after describing the crucifixion they said, "Your God is dead," and then he must prove a glorious resurrection. In Manchuria native agents have been successful and several chapels opened, grouped about a central station. Itineration and colportage are important. The Catholic stress on ritual has certain advantages over the Protestant mode of evangelization. In China the

Roman priest assumes great dignity, to stand on a par with the officials, and his agents bring people to him. He is a celibate, vowed to obey, and he knows that he can expect only his barest needs to be supplied at home, and that he may spend his lifetime without vacations in continuous service. The Protestant is free for a certain number of years, with a stipend. In regions where monasticism prevails, a married missionary carries a handicap. Yet home life actually demonstrated is a strong factor, so that some societies, like that of London, send only married missionaries save in special cases. The celibate in China cannot speak to a woman, but a married man can do so in the presence of his wife. In early days, the first work of the new missionary was to study the language and then translate portions of Scripture, as Carey, Morrison, and many others did. Sometimes the native tongues had to be reduced to writing. The Catholics often withhold the Bible. The Greek, as opposed to the Roman church, has always given Scripture in the vernacular. The early church did, as witness Coptic, Ethiopian, Syrian, and Gothic versions, and that of Methodius to the Slavs. This often leavens literature, makes the vernacular respected, and not vulgar, and narrows the chasm between the learned and the unlearned, the cultured and the laity. The low moral standard of certain portions of the Old Testament has been a great reproach in China, and even the book of Ruth is misinterpreted, and thus, instead of following the principle that it is God's truth and so he will take care of it, expurgated editions are best.

Education has always held a prominent place among mission methods, as it does throughout Mohammedan Africa. As Protestantism has made the Bible the chief source of authority, all must read it. Education has been a great question. The Missionary Union decided against it in India and the American Board has changed its policy. The main point now is as to the type of education. If the first aim is to raise a native clergy, theological training has been thought to deserve precedence. Now the broader policy is to give any useful kind of education to all classes. Robert College has marked a great epoch, and under its influence many other schools, larger and smaller, have sprung up in Moslem realms. This has been a great factor in new Turkey. In Japan, too, Verblieck, S. R. Brown, and Neesima, in China, Martin, Richards, and others have wrought great changes by this method. The Catholics prefer boarding schools, where their pupils can be isolated from old surroundings, and they employ few native teachers. The Protestants train largely on the field; the Catholic clergy are trained in Rome. Industrial training has marked an epoch of its own, though the trades taught are usually those of Europe and little has been done to develop native industries. Perhaps medical activities have been most effective of all points of contact, for cure often brings conversion and proves the inefficiency of the native priest healers, who are always the chief enemies of the new faith.[1] Thus mission work seems on the whole to be more comprehensive and complex than home work. The Roman policy makes the native church dependent, while the Protestants tend more to independence, and its boards recognize that the time will come when its missionaries will no longer be needed in many places, but only advisers, converts being responsible for their own church. Organization, too, is in some places minimized, and in many places self-support is rapidly growing.

The chief mission problem is at bottom social. Men must eat, and modes of life must be decent. All groups have evolved masses of custom and tradition that are essential to their integrity, and these must be conserved. Industrial problems often underlie all others, and every factor of social life is vitally connected with the beliefs of native religions and must be very carefully studied in order to be wisely manipulated, controlled, and evolved.

Is it not plain to any dispassionate mind who has studied the higher history of missions, and knows a little of pedagogy and race psychology, that all present tendencies point to a time when the missionary shall be chiefly a conserver, reviver, and interpreter of the best that is in the native faith, whatever it is? Religious progress is slowest of all, and especially we cannot "hustle the East." Ethnology and comparative religion have taught us that there are saving elements everywhere and that these have the prodigious advantage of being ready-made apperception organs. Christianity is not the *ab extra*, alien, heteronomous thing we have thought it, but the very best sugared-off product of the soul of the multitudinous peoples of old who have contributed to it. It is the goal toward which all have tended, some more, some less, some with farther, some with nearer, approaches. He who chiefly loves and serves God and man, under whatever name, is Christian. The very name, however, Christian or Church, if it offends, need not be assumed or mentioned. The only thing needful is possible without it. Nations are children, and the woe to those who offend them applies here. It is better to enter the kingdom unnamed than not at all. Negations must always be minimized. Abrupt breaks with the past and with social environment are always to be deprecated unless there are very clear compensating or preponderant and certain advantages. It is a commonplace of religious psychology that in every individual and race are found the elements of about every religion that ever was in the world, from fetichism up, and that the best Christian is so only by a more or less safe-working majority of his faculties. Catholics and Protestants should carefully and judiciously compare and weigh each the methods of the other, in both the past and the present, and teach candidates preparing for the field. The syncretism of all religions, including our own, should be intelligently studied and realized; we should understand what the church today owes to Greek thought, to Dionysiac rites, to the cult of Attis and Osiris, Mithra, and Apollo; its debt to the inspired and magnificent Teutonic methods, and how all these have contributed to the doctrine of the atonement and to shape eucharistic rites. We must know and feel the mighty pedagogic power of concession, adaptation, accommodation, and how the church, where it has conquered all, has stooped to all. We have not been harmless as doves because we have forgotten the injunction precedent to be wise as serpents. I have talked with Protestant missionaries long in India who never heard of the inspiring work in that country done by the Catholics, Nobili and Ricci, which are among the most interesting and suggestive of all pages of history. Such propagandists should study modern pragmatism, which teaches that the best definition of truth is that which works best, and should reconsider both the truth as well as the error that lurks in the old slogan that the end justifies the means. No one is fit to labor for the heathen to-day who has not arduously worked his way to a sympathetic appreciation of all there is in the native faith and is able to idealize it all it will bear. About all the old religions are decadent. Perhaps nothing so tends to deterioration as a religion if it is not incessantly wrought over and eternally transformed and informed with higher meanings. Hence the missionary's first care should be to revive the best of all the old beliefs and rites and restore them to their highest estate, and to make the best possible Mussulmans, Confucianists, and Buddhists, and then and on this basis educate, evolve to the next higher stage, and then the next, always mindful of the peril of great ideas in small souls, of radical novelties and innovations in rutty and rusty brains. We should be ever mindful of the greater good and of future conditions, and not allow these to be eclipsed by immediate individual needs. Toleration should be stretched to its uttermost if need be. We should be first of all sure to thoroughly understand the native view and custom, giving it the benefit of every doubt, should conserve everything and attack nothing so far as it is possible, ignore, overlook, wait long before antagonizing, think much as well as pray, be sure that the natives respect everything in their traditions and life that can be made worthy of respect, and think as highly of it all as possible, trust to growth as well as to sudden conquest—in a word, fulfill rather than destroy.

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[1] See Dennis, Christian Missions and Social Progress. N. Y., F. H. Revell, 1897–1906, 3 vols.

Suppose an educated young Buddhist should say to a missionary: "I have studied your Scriptures and the teachings and character of Jesus. I have practised the virtues He commended, and, more than the young man who came to Him, I have given Him all in charity, but for a hundred generations my ancestors have lived and died Buddhists and I would not desert their traditions or cause my relatives pain. I see no serious contradiction between the two faiths, but deem Christianity higher and realize how much it adds. I can do more for Jesus by staying as I am and diffusing among my friends the new light I have found, without coming out and taking a Christian name or being enrolled as one of your converts."

Should such a man be rejected, or even urged to break caste? Could he not do far more in the old harness and under the old name, and would not the same be true of a like-minded Brahmin, Parsee, and all the rest? Indeed, if any of them lived up to the very top of their own religion and idealized it and avoided its abuse, how much would they lack of the Kingdom of God? If they were near it, would they not do more for it by revising and idealizing the faith of their fathers, and might they not thus be doing for it something very like what Jesus did for the faith in which He was born and bred? How far from essential Christianity are the idealized and perfected great ethnic faiths, anyhow? If any of them could be made to blossom into a genuine new dispensation in a legitimate psychogenetic way, would not this flower be at least a near variety of the very same species as Christianity? If so, the true missionary has a higher calling than to convert from one faith to another—namely, to do for the faith where he works what Jesus did for Judaism, develop it to the next higher stage. All religions, if they are not arrested and perverted, issue in the same love and service of God and man. This is the common goal from which they have been withheld and toward which all of them more or less tend. This, the teaching of the genetic psychology of religion affirms, and only theology and dogma deny. The latter are not religion, but only a set of tools that piety has found effective under certain conditions, but which need to be constantly refashioned.

All this presupposes, of course, that both myth and rite never say what they mean but must be interpreted, somewhat as the Freudians bring order into the night side of life by working from the manifest dream content down to the latent dream thoughts. This recent method of work has a remarkable field of application here, but must be presupposed. Now, in view of this, if the missionary, on the other hand, should devote himself first, chiefly or unduly to the suppression of what he deems bad and false without this preliminary psycho-analysis of the folk soul, the result, if he is successful, is that the elements evicted from the open, will retreat to the more or less submerged, regions of the soul. In its unconscious depths they have amazing power of persistence, not only through the lives of individuals but of generations. They are never thus eliminated, but only obscured. From the secret recesses of the spirit they motivate feeling, and will even long after they are lost to the light of the intellect. Thus they slowly gather momentum, it may be for ages. They slumber, they grow strong; though their very stalk is pruned away, the root, like that of tares, waxes and saps the soil for wheat. At last, in due time, comes the reaction, which may take many forms under manifold provocative stimuli. The new faith may simply languish and die out with no visible cause, because all the energy of the soul available in this field has gone elsewhere. There may be an outburst of fanaticism or a recrudescence of abject credulity till the weeds of superstition grow so rank as to choke all else. Crass spiritism may come in, weird seizures, diverse hysteroid symptoms; there may be outbursts of fanaticism, intolerance, persecution. Effete modes of divination and fortune telling, forgotten oracles, and prophecies may be revived as the soul strives to restore its losses or compensate for overstrain by reverting to an outlived state of culture. All that dies an unnatural or precocious death in the soul, tends, often most pathetically, to live again, and in this rehabilitated form is often worse and more ghastly than much that came of its own order of psychic growth. These elements, voluntarily expelled, always strive to get back to consciousness, so that progress by unnatural negation is always unstable and insecure. Only if the soul buries its own dead, in its own way, are there no revenient haunting ghosts. This principle has unnumbered examples in the individual and race soul, and most of all in the field of religion. Only when progress is known and all the stages are more or less fully lived out and in due sequence, is there any effective safeguard from these dangerous, wasteful, and often ruinous reversions.

Religious psychology has very many forms of diseases to diagnose, and religious therapy many to cure, but diagnosis must precede healing, and in the psychic realm it demands long and painstaking analysis. The real cause and cure are both often baffling, latent, and obscure, far more so than are the beneficient elements in the religious life. Thus it follows again that the development of the good among all non-Christian races should long precede the active elimination of the bad. Thus we should commend early and condemn late, praise and encourage generously, antagonize sparingly, and with infinite caution and tact, and learn much before we attempt to teach. All myths and legends, ceremonies and beliefs, should be dissected and cross-examined and explicated as thoroughly as the Freudians treat them to find the sex core, and then only can the Christian psychotherapy be applied with intelligence and safety from the pathetic waste of harm where good was intended. This is both the tragedy and the nemesis of religious work among backward people. A missionary equipped with the methods and spirit of modern ethnology and genetic and analytic psychology is best insured against just these errors to which, as a stranger in a new land, he is so much exposed. He should be also fully informed on all the larger racial issues of the day, such as those proposed for the first International Race Congress called in London for July, 1910, to discuss these problems in the light of modern knowledge, and the modern conscience problems already treated in the Clark University seven-day conference in September, 1909.[1]

To-day mission questions are merging into the greatest of all the problems looming up for the world—viz., the new East, and its relations to the West. What will the West do with China, Japan, and India, and what will they do with us? Ehrenfels estimates that in these countries about every woman is bearing children during her entire fertile period, while in the West only about two thirds of this capacity of reproduction is utilized, and that in China at least the best classes are more fecund than the worst, and also that in general the unfit are more effectively eliminated than with white races with all their child-saving agencies. This, with their now rapid assimilation of the arts, industries, and culture of the West, can mean but one thing for the East. To meet this future we must have under some name a new Oriental type of Christianity, very different from that now proclaimed in these lands. All sectarian differences must be utterly effaced. We must get back of theology to the word itself, and perhaps back of Paul to Jesus. We must discriminate between the portions of Scripture fit and those unfit for the East. The evangelists surcharged with their own message, feeling that they have everything to give and nothing to learn, must be superseded by those who first almost becomé Orientals, with a veritable genius for appreciating the East and transforming their own religious concepts—men who can learn to impress the leading classes and inspire them to be their guides, men with a talent for sympathetic appreciation, which is hard and rare, must take the place of the spirit of criticism, which is easy for any tyro. Did any born and bred European or American ever yet understand an Oriental? Even if he has not, our slogan must now be that he can do so because he must, for they may sooner than we think become our heirs and wield the accumulated resources of our civilization, and make the future what we now make them. Our mighty conceit of our own race and of our religion have gone under in language, and have too often led to antipodal instead of friendly relations. When comparative religion has done its work and we fully realize that all religions are parts of a larger universal one, and that God has left no race without some revelation, we may have to confess that as of old all roads were said to lead to Rome, so all faiths, without exception, have in them the promise and potency of salvation.

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[1] See China and the Far East, ed. by G. H. Blakeslee. N. Y., Crowell, 1910, 455 p. See also the Journal of Race Development, vol. 1, no. 1, 1910.

CHAPTER XI

SPECIAL CHILD-WELFARE AGENCIES OUTSIDE THE SCHOOL

Number and variety of child-welfare agencies—Statistics of illness, subnormality, crime and institutions—Are we improving the race?—Help for the young is best—Subnormal children—The Binet tests—The new experts for subnormal children and their work—How to gauge ability—Moral weak-mindedness—Most abnormalities originate in childhood—Scientific contributions from exceptional children—Stern's Aussage method—Studies of the palate—Laboratory investigations—Training of teachers for idiots—Morons, proximates, mattoids—The French law of 1909—London County Council special schools—The new California law—The psychology and pedagogy of the blind, of deaf mutes, of speech defects, of epileptics, of crippled children—Diphtheria—Tuberculosis and its care—Children's hospitals—Juvenile delinquents—The juvenile protective associations—Probation—The suburban child—Big brother movement—A boyhood survey—The Society for the Suppression of Vice—Treatment of unmarried pregnant girls—Are girls arrested in their development?—Anti-cruelty societies for children and animals—Humane societies—The psychology of pity—Too much athleticism is cruelty—Child labor, the pros and cons—The children's bureau—Children's aid societies, dependence and placing out versus institutional care—Need of special study of orphans—Attitudes of social workers for defectives—Farm homes.

OUTSIDE the stated work of the school and of the church, there are a multitude of institutions and agencies for children and adults that are essentially educational. As these agencies are too numerous to be discussed in a single chapter, they have for convenience been divided into two groups, the first roughly comprising those whose object is more specifically relief and the palliation of evils already existing, and the second those in which preventive or constructive work is the chief aim. The two groups are, however, by no means mutually exclusive, for many of the relief agencies do constructive or preventive work, while on the other hand those societies whose goal is the elimination of the causes of evil and suffering must deal more or less with immediate relief. So vast is this field and so complicated its problems that within the present limits little more can be done than to give a general view of some of the chief lines of work and the problems involved. This work, in its earlier and less developed stage, used to be included in pedagogic treatises, but as the lines of activity have been differentiated, one from the other, they have also separated more or less from the church and still more from the school, so that neither theological seminaries, normal schools, nor academic chairs of education, deal with them, and pedagogy has tended to narrow to school work. The church, however, is now beginning to reinclude many of them. Some deal with normal and others with abnormal classes. Dr. Theodate Smith, who devotes herself to collecting and diffusing information concerning these in a special bureau containing some four hundred feet of shelving, makes ninety species of organizations, grouped under ten general headings. Some are old and are represented almost everywhere, and about half a dozen have national organizations, while others are as yet established in only a few places. The list is still incomplete; subdivisions might be more minute, the classification is rough. It is as follows:

Defective Children:
- Institutions for the Blind.
- Institutions for the Deaf (public and private).
- Institutions for the Feeble-Minded (public and private).
- Institutions for Speech Defects.
- Psychological Clinics.

Delinquent Children:
- Big Brothers Movement.
- Institutions for Delinquent Boys.
- Institutions for Delinquent Girls.
- Help for Girls Who Have Gone Wrong.
- Juvenile Courts.

Delinquent Children (continued):
- Psychopathic Institute (Chicago).
- Probation Work.
- Truant Schools.

Dependent and Needy Children:
- Associated Charities.
- Children's Aid Societies (placing-out system).
- Day Nurseries.
- Industrial Schools and Homes.
- Infant Asylums.
- Orphanages.

Hygienic Agencies:
- Fresh-Air Work.
- Milk Commissions and Depots.

Hygienic Agencies (continued):

- Public Baths and Gymnasiums.
- Societies for the Prevention of Tuberculosis.

Moral and Religious Training:

- Church Clubs and Guilds.
- Institutional Churches.
- International Committee on Moral Training.
- Missionary Work.
- New England Watch and Ward Society.
- Purity Associations.
- Society for Ethical Culture.
- Societies for Moral Prophylaxis.
- Sunday Schools.
- Temperance Work.
- Y. M. C. A. (Junior Clubs).
- Y. W. C. A. (Junior Clubs).

Protective Associations:

- Censory Boards for Moving Pictures, etc.
- Consumers' League.
- Child-Labor Committee.
- Humane Societies.
- Juvenile Protective Associations.
- Protective Associations for Girls.
- Societies for the Prevention of Crime.
- Societies for the Prevention of Cruelty to Children.
- Society for the Prevention of Vice (New York).

Recreation:

- Boys' Camps.
- Boys' Clubs.
- Boy Scouts.
- Boyville.
- Children's Libraries.
- Children's Theater.

Recreation (continued):

- Girls' Clubs.
- Park Commissions.
- Playground Associations.
- Shut-In Societies.
- Story-Tellers' League.
- Vacation Schools.

Child-Welfare Movements Connected with Schools:

- Kindergartens.
- Medical Inspection in Schools.
- Open-Air Schools.
- Parents' and Teachers' Associations.
- Public Education Associations.
- School Nurses.
- Teachers' Clubs.

Relief for Sick Children:

- Children's Hospitals.
- Diet Kitchens.
- Dispensaries.
- District Nurses.
- Free Dental Associations.
- Fresh-Air and Convalescent Homes.
- Institutions for Crippled Children.
- Institutions for Nervous and Epileptic Children.

General Welfare Associations:

- Mothers' Congress and Clubs.
- Children's Bureaus.
- Children's Institute (Clark University).
- Child-Welfare Conferences.
- Child-Welfare Exhibit (New York).
- Child-Welfare Survey (Worcester).
- Civic Leagues.
- Stamp-Savings System, Penny Savings, etc.
- Relief and Aid Societies.
- Women's Clubs.

Many thousand postals and letters have been written and all available lists and directories utilized, clippings and bibliographies gathered, and the collection is already extensively used by visitors from near and far, and hundreds of inquiries from this country and abroad are answered. Only a few of the older societies have been able to furnish us complete sets of their reports, while many publish none, and others only financial statements or reports addressed chiefly to those who may give them financial aid. Despite these difficulties, we aim to print eventually a concise statement of the history and aims of each of the above types, supplemented for each by suggestions as to the help child-study can give in the treatment of every class of cases. This is perhaps the most vital present thing. Social workers have little opportunity to know of the work of other organizations, although they would greatly profit thereby in economic coöperation. Academic research and practical philanthropy for adults, and especially for children, now profoundly need each other.

A Glance at the General Deviate Field.—There are now about 150,000 people in this country so feeble-minded as to need special care, of whom only some 15,000 or one in ten are in our 30 public institutions for them. We have some 105 reform schools with about 52,000 inmates, costing nearly $7,000,000 a year. There are not far from 350 hospitals for the insane with perhaps 200,000 inmates. About two thirds of these institutions are public, and they cost some $20,000,000 a year. There are about 115 state, public, private, and church institutions for the blind and deaf with more than 15,000 inmates, costing about $2,500,000 per year. There are some 400 prisons with nearly 90,000 inmates, costing perhaps $13,000,000, and we have 2,500 almshouses with about 100,000 inmates. There are 1,200 refuge homes and 1,500 hospitals, costing some $30,000,000 per year. Davenport estimates that between three and four per cent of our population have or ought to have institutional care of some sort, and that altogether they cost us $100,000,000 per year. Of course these figures are approximate and not all from the same year, and they include institutions for adults as well as children. Here, too, should be added all the organizations in the above list.

Now the worst of this whole sad business is that we are not sure that we are abating many of these evils, and, indeed, most of them seem to be increasing not only absolutely, but relatively to the increase of our population, despite all this labor and expense. We do much to check contagious diseases, but have not yet been able to greatly affect infant mortality, especially under the first year. Now, if there is a regular percentage of increase in the cases needing treatment by the above agencies, an increase not due merely to better methods of enumeration, and if we cannot stop it, an eighth-grade boy can figure out the number of years it will take for the whole nation to become a hospital and all the morally, mentally, and physically well will have to devote themselves to caring for those born short, arrested, or perverted. This leads me to my first point, which is that we must not interfere too much with natural selection in the human field. If the rate of increase of the best children diminishes and that of the worst increases, the destiny of our land is sealed and our people are doomed to inevitable decay and ultimate extinction. These three big Ds we deal with, the defectives, delinquents, and dependents, the great Biologos or spirit of life would designate or describe by another adjective big D not fit to print or speak, for they are a fearful drag upon our civilization. If some new sudden calamity, like a pestilence, a widespread earthquake, or the whisk of a comet's tail had suddenly produced all this wreckage, how we should bestir ourselves, and how vivid and universal would be the realization of the magnitude of this evil to which long familiarity has made us too supine! From the standpoint of eugenic evolution alone considered, these classes are mostly fit only for extermination in the interests of the progress of the race. On the principle of selection and the survival of the best, they should be treated as Burbank treats the huge pile of plants he has cultivated and bred from what would not yield the best product and so burns. These are the tailings of the mine, the wastage and by-product of civilization. Nietzsche, who considered himself a sort of evolutionary Christ of whom Darwin was only the greatest of the prophets, condemned even Christianity because it so exalted pity and thought so tenderly of and conserved the weak, sick, paupers, and out-casts who ought to be left to their fate in the order of nature, which is to die out and leave the world for the best specimens of humanity. To allow the Jukes, Ishmaels, and Karnagels not only to live, but to spawn their progeny, he deems a slow racial suicide which interferes with nature's purgative method of eliminating the weaklings.

Now it is not necessary to take time to refute these extreme, and in the present state of society, quite unpractical theories. The world is not yet ready, if indeed it ever will be ready, to put them into practice or to apply the principles of stock-breeding to man. We all believe in eugenics, and its viewpoints should temper all our work, but its thoroughbred advocates do scant justice to the worth of the sentiment of pity, compassion, mercy, and mutual help upon which the highly gregarious soul of man and human society itself so largely rest. Who knows but that these unfortunates render mankind one of the best of all services in keeping our hearts warm and our sympathies quick, and in strengthening the sense of social solidarity and brotherhood, so that perhaps in this sense they render us a greater service than any we can ever hope to render them, especially in these days of egoism, grasping greed, and ruthless individual selfishness; who knows how far we should go in this line but for these classes? So far as I can analyze it, the chief cornerstone of our religion is found in the psychology of sympathy and compassion which drew God Himself down from heaven to earth. This is the selfsame principle that draws individual men and women, cities and states, to give and to work for those who are unable to meet their own needs.

When we survey all this vast derelict side of life, it is first of all plain that while adults of many classes—the vicious, sick, aged, and the rest—will always need our ministrations, it is *the young* with whom we can do most and who best respond to our efforts and through whom we can do most for the future. Again, it is plain without discussion that immediate present relief, like first aid to the injured, should always have precedence. The best agencies are often those which act most quickly in emergencies. Food, shelter, clothing, medical care cannot wait, and our effectiveness might be measured by the mathematical formula of inversely as the square of the time distance between the need and the operation of the aid. The slow action of complex machinery must not thwart the ends it was devised to serve. We must never forget that everything in the whole arsenal of charitable apparatus is only a means to the end of prompt and efficacious help. We must never allow the multiplication of agencies and official routine or red tape or prolonged or delayed personal investigation to interfere with instant individual relief where this is needed. Doles to beggars on the street, or food passed out at the back or even the front door are not scientific charity, but even they are sometimes best, and we may take some risk of aiding impostors rather than run too great risk in turning away one worthy person not duly investigated and credentialed. Children are, at any rate, as a rule, less apt in imposture, and all our rules for adults will often need suspension or modification for them. This in all its extent we have not yet fully appreciated.

But, secondly, we have a higher, harder, common duty toward all these assisted classes, and that is to study these cases individually and collectively by all the most advanced and special methods that can make our actual work with and for them wiser and better. They must be helped and loved with all the warm enthusiasm for humanity that philanthropists who give or those who work or pray ever felt. The great tide of charity that flows so rich and strong and deep from the heart, however, must be illuminated by all the sciences, so many of which now have their best fields of practical application here. We must not only pool all the results of specialists for our common use, but we must actively contribute to increase the sum total of human knowledge upon all topics that can improve the rising generation, than which there is nothing in the world so worthy of supreme love, reverence, and service. Never was there so rich a field open for hygienic, eugenic, physiological, pathological, anthropological, psychological, sociological, as well as for statistical and experimental study and research as that which is constituted by the inmates of the institutions devoted to their welfare. The material upon which investigation is needed is rich and rank; the field is wide and white for the harvest, and much of it is now going to waste, and these classes seem to fairly cry out to the genetic psychologist, "Come, study, know and help us." In these words of charity Nature has made many sad and cruel experiments; she has lapsed, blundered, and thereby given herself away by betraying her secrets which she seems here to invite us to explore. We owe already very much knowledge of the makeup and motivation of human nature to its fragmentary specimens. I think there is general consent that it is by the study of these classes far more than by studies in any other domain that our knowledge of man and mind can now be increased. Our work with them can never be like that of the routine teacher, mechanical and in lockstep groups, for every child is a new bundle of problems and our success depends upon our insight in discerning and our originality in inventing new methods; in other words, in raising new questions and in exploring for new answers. Each new case puts up to us a new problem, puts us on our mettle. We must build our own tools and do not find them ready made. We must construct every road we travel, step by step, as we advance. It is a question of our own resources rather than of cut and dried ways, and there is no glimmer of knowledge we have ever acquired in the field of any or all of the 'ologies just enumerated which will not some time with some problematic boy or girl come most opportunely handy, and may indeed save a soul to civic usefulness. Adults are more finished and static; children far more complex, plastic, fuller of dynamic potentialities, and the children we work with are often almost startlingly salvable. Their sense, their physical, intellectual, or moral development merely lag or are checked, and if we can touch the right spring results may be marvelous. The child is ages older than the adult, who is a relatively very modern institution, and both its body and soul are full of rudimentary organs by the score that belong to a remote past. Some of these must be left to atrophy and others must be actively developed. Epicurus used to say that a young turtle contained every kind of meat, fish, mutton, beef, pork, fowl, etc., but that the old turtle was just plain turtle. So the child is infinitely more complex and contains more human qualities than the adult, who is a specialized being. The very vices of the young hark back to savagery. Their diseases and abnormalities are often connected with embryonic stages which persist. Their perversities are only good traits out of proportion or out of their time order. Everything that makes for our success or failure depends in the last analysis upon how well we know or do not know the child, and how to deal with its body and soul. Some divine much by tact and native insight and others little, but the time is very near when the demand will be imperative that all who serve this class must be informed, at least in general, of the wealth of the resources which have lately been opened to our craft, and which are so rapidly making it more scientific and more professional. All the 'ologies above have a common focus in the child, the study of which is for all practical purposes the very best pedagogic way of approach to each and all of them. All higher statesmanship should look with the greatest solicitude to our statistics to tell whether our land is producing better or worse human specimens. This is the ultimate test of whether family, school, church, and government are doing their work well or ill. We should keep the conning tower from which all of them should take their larger bearings and orient themselves in the widest horizon. To do this well, all our tests should so far as possible be uniform and national, and tell just what constitutes a criminal, imbecile or pervert, invert, deviate, for there are always far more individuals near the boundary line than well above or clearly below. Social and personal diagnosis is always the first step, and the success of treatment depends upon how well this is made.

Let me now tab off a few of the specific contributions which the larger child study has made toward a few of those classes, although each of the following points paragraphs a chapter.

About one per cent of American school children are subnormal. Although from Seguin down, these unfortunates have been observed with ingenuity, Witmer, of Philadelphia, established the first academic clinic for them.[1] Goddard at Vineland and MacMillan at Chicago followed, and then came Healy, Huey at Lincoln, and O'Connor and Chase at Clark. This work is the direct product of applied experimental and genetic psychology, and affords an almost ideal example of the relations that should exist between psychogenesis and every child-welfare institution, for these children are now being both more carefully studied and more effectively helped than perhaps any other class ever was. Each peculiar child is a class by himself and should profit to the full by every expert method. Nowhere, perhaps, in history has psycho-pedagogy accomplished like results. A wealth of data for heredity is being slowly amassed. Now the first question in dealing with such a case is to know how abnormal it is or what is the degree of defect. To determine this we must know what the average normal child of each age knows, can do, etc. This knowledge was till lately entirely lacking, and defectives could only be roughly grouped as idiots, imbeciles, etc., or high or low grade. Now, thanks to Thorndike and Miss Norsworthy, to de Sanctis of Rome,[1] and best of all to Binet and Simon,[2] we have a tentative scale on which to measure the progress of the average school child from year to year, from three to thirteen, inclusive. Thus backwardness can now be measured by the degree of departure from these norms. This scale is incomplete, and many additions to it have already been suggested and tried. It has never been specifically adjusted to American children, who are doubtless different from those of Paris. Such laborious studies also should be carried on to more advanced years and should be diversified indefinitely. It is, however, a valuable beginning. The assumption throughout is that all defects can be best explained as arrests and best measured by the number of years the patient falls behind the normal scholar. The tests are, therefore, genetic to the core. They have the advantage of requiring little apparatus and so can be applied almost anywhere. They are as follows:

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[1] The Psychological Clinic, 1907, vol. 1, pp. 1–9.

Mentality of three years

1. Touches nose, eyes, mouth, and pictures of these, as directed.
2. Repeats easy sentences of six syllables, with no error.
3. Repeats two numerals.
4. Enumerates familiar objects in pictures.
5. Gives family name.

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[1] See H. H. Goddard, The Training School, November, 1908, vol. 5, no. 9, p. 12.

[2] Le developpement de l'intelligence chez les enfants. Ann. Psychologique, 1908, Tome xiv, pp. 1–94.

Mentality of four years

6. Knows own sex.
7. Names key, penny, knife.
8. Repeats three numerals in order, when heard once.
9. Tells which is longer, of lines differing by a centimeter.

Mentality of five years

10. Discriminates weights of 3 and 13 grams, 6 and 15 grams.
11. Draws, after copy, a square that can be recognized as such.
12. Rearranges a rectangular card that has been cut diagonally into two triangles.
13. Counts four pennies.

Mentality of six years

14. Shows right hand, left ear.
15. Repeats easy sentences of sixteen syllables.
16. Distinguishes pretty from distinctly ugly or deformed faces, in pictures.
17. Defines, in terms of use, the words fork, table, chair, horse, mamma, three, satisfactorily.
18. Performs three commissions given simultaneously.
19. Knows own age.
20. Knows whether it is forenoon or afternoon.

Mentality of seven years

21. Notes omission of eyes, nose, mouth, or arms, from as many portraits.
22. States number of fingers on right hand, left hand, both hands, without counting.
23. Copies written phrase, with pen, so that it can be read.
24. Draws diamond shape, from copy, so that it can be recognized.
25. Repeats five numerals in order, when pronounced once at half-second intervals.
26. *Describes* certain pictures shown.
27. Counts thirteen pennies.
28. Names penny, nickel, dime, silver dollar.

Mentality of eight years

29. Reproduces correctly two facts, after once reading seven lines about a fire.
30. Counts values of six stamps, three ones and three twos, in less than fifteen seconds.
31. Names red, green, blue, yellow.

32. Counts backwards from 20 to 0 in twenty seconds, with not more than one error.
33. Copies easy dictation, so that it can be read.
34. States differences between paper and cloth, butterfly and fly, wood and glass, in two minutes, two satisfactorily.

Mentality of nine years

35. Names the day and date, allowing error of three days either way on day of month.
36. Names days of week in order, in ten seconds.
37. Gives correct change from a quarter paid for an article costing four cents.
38. Defines in terms superior to statements of use, in No. 17.
39. Reproduces six facts from seven lines read once, in No. 29.
40. Arranges, in order of weight, boxes of same size and appearance, weighing 6, 9, 12, 15, and 18 grams, in three minutes. Two out of three trials.

Mentality of ten years

41. Names the months in order, allowing one omission or inversion, in fifteen seconds.
42. Names a penny, nickel, dime, quarter, half, dollar, two, five, and ten-dollar bills, in forty seconds.
43. Uses three given words in not more than two sentences.
44. Tells what one should do if one misses train; if unintentionally struck by playmate; or if one breaks an object belonging to others. Two satisfactorily.
45. Tells what one should do if late for school, or before undertaking an important affair, and why we should judge by acts rather than by words. (Two other questions may be asked.)

Mentality of eleven years

46. Detects incongruities in three out of five statements, in about two minutes.
47. Uses three given words in one sentence.
48. Names at least sixty words in three minutes.
49. Defines charity, justice, goodness, two satisfactorily.
50. Rearranges shuffled words of eight-word sentences, two out of three, with one minute for each.

Mentality of twelve years

51. Repeats seven numerals in order, when heard once.
52. Names three words that rhyme with obey, in one minute.
53. Repeats, with no error, sentence of twenty-six syllables.
54. Infers a fact from given circumstances which indicate the fact.

Mentality of thirteen years

55. Images and draws result of cutting triangle from side of twice-folded paper.
56. Images and draws new form produced by joining transposed pieces of diagonally divided visiting card.
57. Distinguishes between abstract terms of similar sound or meaning.

By these tests, which have been more or less accepted in this country, at least as points of departure, mental age may be approximately determined in subnormal children. These tests can be indefinitely supplemented, e. g., by calling a word and requiring the child to speak the first other word it suggests or its opposite, giving an adjective and asking for a fit noun, thus working out the association plexus most in use. Motor coördination is tested by having the child walk backward, stand on one foot with eyes open or closed, hop, stoop, tie a knot, string beads, pick up small objects, spread the fingers, button and unbutton, make faces and tongue movements in imitation. There must, of course, be tests for defect in the sphere of each sense, including perceptions of color, distance, discriminability, etc., power to understand and describe pictures, to tap in time, cross out from a printed passage every certain letter, counting groups of threes, and all kinds of strength and fatigue tests. The application of elementary psychoanalysis has doubtless far greater possibilities here than are yet realized. Then there are numberless unstandardized tests. Every type of peculiarity may be found, the tendency to fuges, morbid diffidence, aboulia, excess or defect of every emotion, abnormalities of function and structure as well as of height and weight galore. A full *questionnaire* should in each case be made out for the family physician to answer, who should be paid for so doing by the parents, and another for them to answer. Such data, if patiently collected, will surely shed some light on problems of heredity. Only on the basis of such studies can descriptions of regimen, treatment, special institutions, or private trained attendants be intelligently prescribed, and then these may be amazingly effective. The coöperation of a specialist in children's diseases is indispensable, but here the trained psychologist sees a new field opening of the greatest promise. In the copious literature upon the question whether there is such a thing as general ability, and if so what it is and how augmented, almost diametrically opposite conclusions have been reached by psychologists, many holding that every kind of ability is a specific proficiency in one line and that there are no general powers. In these studies school subjects and examinations, together with a full laboratory test, constitute the chief data. Now if every mental power is specific, we may deem the above tests more general than they are and come to rely on too few of them. In fact, however, we probably cannot use too many, and doubtless in time the number of those in general use will be increased. On the other hand, experience will probably teach us as we learn more of their correlation with each other that certain of them involve the determination of others, and this will tend to lessen their number to those that are crucial, and each more generic type of defects, if not each particular one thus found, should have its own therapy. We ought also to learn what true Mendelian psychic qualities are and which are independently variable and can be called the psychic determinants of others. In these cases nature has made every kind of experiment and the elimination of one trait often goes with accentuation of others. Psychogenesis, therefore, seems justified in the hope of rich contributions from this field. Here, again, the subtly devised laboratory tests designed for cultivated adults are of very little value, either practical or scientific, for they do not deal with true psychic elements, but with psychic artifacts obtained by abstraction. Here, however, we deal chiefly with two things—retardation and acceleration, or arrest and precocity; for it is already plain that not only the difference between the child and the adult, but that also between the fool and the sage, is wholly one of the degree of development. This insight itself is one of the greatest of the new triumphs of the genetic viewpoint, so rapidly becoming the master key to all insanities as well. The time has already come when analogous methods can and should be wrought out for delinquent children, and experts are sure to be soon at work in this field for the mattoid and criminaloid types often found in our reform and industrial schools, for such, both boys and girls, have much in common with defectives. Later, similar modes of investigation already preluded in the work of Janet and Freud will be applied to the neuroses and psychoses, where the genetic standpoint has already begun its illuminating and transforming work. Finally, it is in this field, if anywhere, that we may now expect new decisive data for determining better the problem of the relations between heredity and environment, which is of almost supreme importance alike for science and for practice. Ingenious young men are always wiser than they know, and it is not without significance that so many of them are now being attracted to the study of defectives and deviates where the theories of psychic evolution and practical philanthropy meet.

It would now seem that at about thirteen the average child or the defective who at whatever chronological age reaches that level, which significantly marks the dawn of puberty, is just capable of taking care of himself mentally, apart from all considerations of will and feeling. That is, this marks the low level of unskilled and laboring men and women, or the least exacting, barely self-supporting stage. Higher industrial lines need a higher norm or minimum, and the professional classes a still higher one. Those who fall below this standard must usually remain institutional cases. If even this minimal norm could be determined and strictly maintained in each vocation, many industrial accidents, as in mines, railways, and factories, would be avoided, to say nothing of scandals, for these are caused by those who try to reach levels above their capacities. The same, of course, is true of crime and vice, and, be it added, below this lowest dead-line of a girl of thirteen for abnormal cases, procreation should be forbidden. Thus Binet's tests, or something like them, might serve to determine who, although chronologically and physiologically old enough to marry, are psychologically unfit to produce decent, self-supporting citizens. It must not be forgotten that all this applies to the intellect alone. Puberty, however, marks an emotional and volitional reconstruction of a profoundly transforming and, for those handicapped by heredity, dangerous stage. Abnormalities in the domains of feeling and will may unfit those intellectually competent for coping successfully with life. Errors and arrest of all the finer neural functions may cause psychoses. The higher and later superposed layers may develop but lack energy to function well, or be deficient in recuperative powers, but we know more of psychological than of neurological shortages. Thus all clinical work has to be functional. Janet's psychogenetic method is to consider human faculties a hierarchy, each higher function resting on a lower one. Alimentation, e. g., is at bottom the reflex process of digestion, or assimilation and elimination. Higher comes the prehension of food by mouth and hands that is more or less voluntary. These organs of this second level may be used for other purposes. Still higher come the fully conscious control, preparation of food, power of eating in society. This latter may be so feebly established that it fails at a dinner party, and we often see faint intimations of this defect in awkwardness. This relation of superposition of functions was clearly characterized by Hughlings-Jackson in his classical studies of epilepsy. Again, in sex, the oldest organs are the male and female plasm and the reflex functions and organs. Then higher come the secondary sex qualities and courtship; then social and conventional forms and all the delicate texture of social relationship; and higher and later yet, the long-circuiting into art, religion, intellectual interest, enthusiasms, etc. So speech was a superposed function of the masticatory and deglutitional organs and others. All the later are always more unstable and more easily put out of function by complex and unusual environments. Many persons can just perform the fundamental functions of life if quiet or alone, but a shock brings confusion and breaks up these more complex functions. Hence disturbances are very liable, under the influences of the transformations of puberty and accidents of life, death, marriage, change of career, etc. These cases are often checked and remain where the trouble left them because they cease to continually transform and adjust to the increasing intricacy of reality. Thus Janet conceives all neuroses as resting on the evolution of function. Overstrain very easily throws the psyche back to a lower level and brings dissociation. Thus one question always is as to the soundness of the early child stages of development. Strain enough will drive the soundest mind to insanity. In many of these cases the feeling and will do not at all fit the environment and they lose touch with it. Thus these cases are often dreamers or their activity is ineffective and unfruitful. The development process is unfinished. Often there is temporary lapse to illness, which is sometimes an early sign of insufficiency or a warning that deterioration threatens. Such illness probably brings no real immunity against insanity, for it is certain that the feeble-minded are vastly more predisposed to it than the normal. Thus we see that some are just plain dull but otherwise normal; others are abouliacs who cannot socially adapt themselves, and these cases may culminate in neurasthenia and hysteria with uncontrolled emotions. Others are the inadequate school, cannot grasp or keep up with life, and go to seed like worm-eaten fruit in *dementia præcox*.[1]

Thus for all who cannot reach and keep the higher levels we must construct an artificial environment to shield them from lesions and arrest. Here great ingenuity is needed, and very many cases, as Adolf Meyer says, may be taught to do something well enough to take satisfaction in it and to at least help in their own support. This is our cue and our hope; to find this something is our task. The mental hygiene and regimen of these cases must always be unique, for by it chiefly or alone salvation to the world may be achieved. We must often go down and back to early stages of human evolution and work laboriously upward, presiding over mind in the successive stages of its making, doing by nurture what Nature should have done. All this, of course, is very different from all the goals of the standard academic psychology, which affords us almost no help. The great practical rubrics and categorics are: 1. Attention, its intensity and power of sustained activity; it is the mind's grip and related to will. 2. Memory, including registration and recall in fullness and accuracy, including *Aussage* work. This surely is fundamental. 3. Unification of mental elements or span of mind, all the way from the number of things that can be taken in at a glance to the general power of synthesis, with which, of course, goes more or less analysis. 4. Somewhat different from this is the exploration of the association plexus or the lines of thought most frequent and familiar. The mind is always grinding over its old stores; what are the channels of the stream of thought, conscious and unconscious? Here we have a master method in word-reactions and psychoanalysis which often lays bare the very ganglionic centers of the soul. 5. Reason, which is mind action, conscious, more or less forced, and working often by rules and dealing with abstractions. 6. Passing to affectivity, we must test susceptibility to *pleasure and pain,* including interests; also we must seek the chief lines of fear and anger, and find out what we can about the *sex and religious life.* Any other strong feeling elements need attention. Manifestations in this field are often characterized, not by excess, but by defect. The natural affections seem undeveloped. Another common trait is Janet's *emotivity* or the propensity of strong sentiments and feelings to erupt and bring confusion and disruption or dissociation to consciousness in the way so characteristic of hysteria and neurasthenia. On this basis we can often find something in regard to values generally and temperament and over- and under-estimation of self. And finally, on the side of will and action, the " control of movement " is, of course, fundamental, and this leads on to orientation in space. These are elements in the science of the individual. This is a comprehensive psychic examination. It is obvious that we have to go outside of the intelligence and still further outside the narrow range of the school. Development now normally does continue in civilized races at least for a decade after the Binet scale closes, but this law prevails; the farther up, the greater the percentage of crippling. That is, far more fail to reach the very highest than the next highest stage, and so on. We are all arrested—some more, some less. Probably mind was meant to be continuous adjustment, and progress should last as long as life itself. Even what we know of the brain suggests this. Thus we must not forget that besides its negative results, these lines of study have a most inspiring positive one. We may be able to describe and measure mind development not only to but through adolescence, on to maturity, and even to old age. At any rate, supernormal and subnormal cases shed much light on each other.

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[1] See Huey, Retardation and the Mental Estimation of Retardation of Children, Pedagogical Seminary, Oct., 1910, to which I am here indebted. Also Mental Deficiency, by A. F. Tredgold, London, Bailliere, 1908, 391 p. Ueber den Schwachsinn nebst seinen Beziehungen zur Psychologie der Aussage, von Jul. Hampe. Braunschweig, Vieweg, 1907, 79 p. The Care and Control of the Feeble-minded. The Royal Comm. and the Nat. Soc. for the Prevention of Cruelty to Children. London, 1909, 40 p.

It is the deviates and those arrested below, and especially above, thirteen, that make many of the most serious problems of society and that are always getting into or causing trouble. Many criminals who have fallen short are really irresponsible and should be in institutions. This confinement all dread, and the age standard at which most are released brings many dangers to society.

The first school for mental defectives was founded by Dr. Seguin in Paris in 1837. A great philanthropic movement in behalf of these children, however, began in Switzerland, and this was the great center of irradiation. The Massachusetts School for the Feeble-Minded was founded in 1848 through the efforts of Dr. Howe, when $2,500 a year was provided for an experimental school at the Perkins Institute for the Blind. The Waltham School now has nearly seven hundred inmates and a long waiting list. Twenty-two societies now provide for the feeble-minded, and some of them have several institutions adapted to different grades. The New York Letchworth Village, which will soon be opened, will accommodate over one thousand. Lakeville, Conn., has over three hundred. The public school system is recognizing the claims of these children, and fifty cities have special schools or classes. Miss Bancroft, of Haddonfield, N. J., has a correspondence course. In some cities, kindergarten training is preparation. There is a copious literature, largely, however, in French and German.

The first institution to employ a psychologist was that at Faribault, Minn., where Dr. Wylie was appointed in 1898. The work of Dr. Witmer, of the University of Pennsylvania, began in 1896. Then, five years ago, came Dr. Goddard at Vineland, N. J. In the fall of 1909, the Chicago School of Civics and Philanthropy, a doctors' hospital society, and the Juvenile Protective Association coöperated in organizing the Psychopathic Institute under Dr. Healy, and Dr. Huey was appointed at the institution of Lincoln, Ill. The work of the clinician is not so much legal as coöperative on the philanthropic basis. Most institutions return their inmates to their families or they must be cared for as dependents if they have not acquired the ability to support themselves.

In the study of feeble-minded children much would be gained by observing not only their defects, but their exaggerations and supernormal traits. Only recently has experimentation been attempted upon this class, and physicians have not long been willing to admit outside experts. Sollier's work showed the great advantage of such investigations. The feeble-minded have been classified in many ways, according to speech, morals, intellect, attention, etc. Dagonet makes four classes—simple-minded, imbeciles, idiots, and automatists. Sollier bases his classification upon attention, of which he thinks there is no vestige in absolute idiocy. In all classes he finds not only a diminution in quantity but a modification in quality of the faculties. Most idiots also present cerebral lesions. Dr. S. I. Franz[1] sums up the conclusions of some recent and interesting experiments and observations. Not a few recent writers have thought that the lack of mental ability in many cases could be traced to disturbances of sense which interfere with associational processes. Yet both blindness and deafness do not necessarily cause idiocy, so that sense defect is probably not the chief factor in mental weakness. Wylie[2] found visual dullness six or eight times that of normal children. Others have found that they are prone to hypermetropia, to astigmatism, although Sollier says that in imbeciles neither sight nor hearing is usually affected.

Their color sense is hard to test because of their lack of language. Several observers—e. g., Jonckheere[3] and Kelly[4]—think color vision usually defective. Taste and smell are often dull or perverted. Simple idiots are likely to be gluttonous, and imbeciles gourmands. Some low-grade idiots eat salt as if it were sugar, and swallow earth, stones, bugs, and even excrement. Of sixty-six children, tested with solutions of acid, quinine, and salt, twenty-three could tell little difference, and the thresholds were high in all. The pain sense and touch, too, are dulled, as several experiments have shown. Sensitiveness to compass points is diminished and the muscle sense sometimes greatly reduced, some think almost exactly according to mental ability. Demoor[5] and Claparéde[6] found a very interesting reversal of the ordinary weight illusion. When two objects of unequal size, but equal weights, are lifted, the smaller is thought heavier by normal children of six or seven, but in low idiocy the reverse judgment is often persistently given, or in others the illusion is absent. This "sign of Demoor is thought to indicate incapacity for education, and is a diagnosis of the unteachable class."

The feeble-minded respond to motor better than to any other kind of education. If their movements are rapid, accurate, and controlled, much improvement in their condition may be hoped for. Strength, accuracy, and rapidity of movement are all less than in normal children, as Wylie and Kuhlmann[7] have shown, and the threshold of movement seems larger. Fullerton and Cattell think the accuracy of perception of the extent of movement does not differ much from the normal. The rate of tapping is slow. Kuhlmann secured improvement by practice in throwing at a target, although the curve was not regular and often dropped to a point lower than that where it started, due perhaps to decreased interest. Many tap slowly and cannot be made to do so faster. Some improve by practice, but the results point to the inference that fatigue is more rapid and greater than with normal children, although whether this is fatigue or loss of interest and attention it is difficult to state.

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[1] Studies of Feeble-mindedness. Journal of Philosophy, May, 1905.

[2] A Study of the Senses of the Feeble-minded. Journal of Psycho-Asthenics, June, 1900, p. 137.

[3] Jonckheere, M. Tobie, Notes sur la Psychologie des Enfants Arriérés. Arch. de Psychol., 1903, p. 253.

[4] Kelly, Robert L., Psycho-Physic Tests of Normal and Abnormal Children. Psychological Review, 1903, p. 345.

[5] Les Enfants Abnormaux a Bruxelles. L'Année Psychol., 1900, pp. 296–312.

[6] L'Illusion de Poids chez les Anormaux. Arch. de Psychol., 1903, pp. 22–32.

[7] Experimental Studies in Mental Deficiency. American Journal of Psychology, 1904, vol. 15, No. 3, p. 391.

Most agree that malattention is the greatest obstacle in training children with mental defect. Kuhlmann found that attention and effort could only very slightly increase the rate of taps, which is very slow. Consoni[1] showed considerable attention, but very easy abstraction, which greatly increased the double-point touch threshold. Power of attention goes with that of inhibition and can be used to measure it.

Reaction times are far slower and it would appear, as Wylie concludes, that long reaction times and high mean variation is characteristic of the feeble-minded. Wehrlin[2] and Wreschner[3] made tests of various kinds, but found the times all longer than those of normal subjects. So, too, in naming pictures, sorting cards, was time excess considerable. Associations and the memory of imbeciles are limited. Wreschner found this to be true when using as stimulus words adjectives descriptive of line, color, form, direction, movement, touch, temperature, hearing, smell, taste, pain, general æsthetic feeling; or when he used nouns, such as parts of the body, objects in a room, a house, city, the earth, names of plants, animals, persons, occupations; or, again, with abstract words of glad or sad content. Each word was used ten times, and the associated words noted, grouped, or analyzed. The chief feature is the persistence of certain associations and the fact that many are pure sound associations. Content takes more time than sound. As to memory, many are unable to recall the simplest words, while others are able to recall things remarkably, such as disks for a music box by the arrangement of the holes and the design of the inscription; or, in another case, an idiot of nine had a gift for learning French and Flemish patois and Dutch. These children often compare well with normal children in recalling numbers, although idiots fail in all tests. Four numerals can be accurately repeated by many feeble-minded, and sometimes six. Auditory memory may be well developed, and in some of the tests with nonsense syllables it approximates that of normal subjects. Time and space are very difficult to teach, especially time, and the past is harder than the future. Bright are preferred to dull colors. Music has great dynamogenic effect.

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[1] La Mésure de l'attention, etc. Arch. de Psychol., 1903, p. 209.

[2] Ueber die Assoziationen von Imbezillen und Idioten. Jour. f. Psychol. u. Neurol., 1904, p. 120.

[3] Eine experimentelle Studie über die Association, in einem Falle von Idiotie. Allg. Zeitsch. f. Psychiatrie, 1900, pp. 241–339.

M. W. Barr[1] discusses at considerable length the various terms used in different languages to designate those who are subnormal, describes briefly the history, classification, cause, diagnosis, prognosis, training, craniectomy, cretinism, microcephalous epilepsy, idiots-savants, echolalia, adenoma, sebaceum, and from the 249th page on he describes illustrative cases. The first part of the work is largely valuable for the opinions of others, which it presents, and for the compilation of various tables. For instance, an aggregate of 5,430 cases studied by various writers points to the conclusion of the predominating influence of heredity and of prenatal conditions. Postnatal causes come later and are less potent. Often exhausted vitality in the mother is especially prone to cause arrest. To shocks, as in the remarkable results of a Japanese earthquake upon those with child, must be ascribed a very important influence. Strain, physical or nervous, is often mentioned. It is often impossible to detect idiocy in the earlier stages of infancy. Probably hereditary causes are distinctly accentuated in the condition of mothers during gestation.

Some of the topics that the author touches upon are of somewhat unique interest. He cites a number of instances where boys have not been happy because they were not physically punished. They are perhaps restless, nervous, and a few smart spanks bring tears and great relief. Some children beg to be flogged, and declare afterwards that it does them good. Others prefer it to being treated coldly. For others it is preferable to suspense. Very many defective children die and the necropsy often reveals quite worthless and worn-out tissues which explain the sudden collapse with apparently slight cause. Some revive from the very brink of the grave in a no less startling way. The make-up is poor and goes to pieces on slight provocation. Thus many die in early childhood because too feeble to resist any adverse influence. Other infants die physiologically old. Another psychic trait of imbeciles is that they rarely suffer from nostalgia. After considerable correspondence, Barr comes to the conclusion that asexualization should be legalized, never as a penalty for crime, but only in defectives who are liable to commit crime, who have been pronounced by physicians incurable. It should be done with every possible precaution, and should begin with high-grade idiots, and testiectomy and oöphorectomy are the methods preferred. The circular to physicians shows a growing consensus in this direction, and several states will no doubt soon authorize this step, and the few leading advocates of it, now so much abused, may in the end have monuments erected to their memory. Where these operations are performed late in life desire is not abated, but for those younger the experiments that have been performed in many places of late years, and which are here briefly summarized, are, on the whole, highly favorable.

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[1] Mental Defectives, Their History, Treatment, and Training. Phila., Blakiston, 1904, p. 368.

Upon the theory that microcephalism is the cause of premature ossification of the skull rather than its result, or, in other words, that the skull molds the brain and not *vice versa,* very many operations have been performed upon the skull. From a review of the evidence this author is convinced that there has never been a single case of improvement, although many deaths have resulted from these operations. This must not be confused with operations on the brain for epilepsy.

In an interesting chapter the author brings together notes upon many idiots-savants who play checkers, cards, chess, are arithmetical prodigies, draw, carve, model, and especially have prodigious verbal memories for words, music, etc. A *cretin* who died in 1841 drew cats so well that he was called the Katzen-Raphael. Those who do not understand the clock dial can figure out precise minutes of any situation or duration. Those who do not know figures can make astonishing computations. Those incapable of learning notes or of reading can compose, but these wonderful powers usually subside with maturity. An interesting discussion of echolalia, which ascribes it to a short circuit in the brain, concludes the systematic part of the book. It must be said, however, that the clinical part or description of cases will by many be thought more valuable than any other part of the book. The striking factor in the studies of this class is the vast variety of mental and physical traits. There can be no doubt but that, if binomial curves were constructed, all of them would be very flat and show a wide distribution about every average that could be found. This is perhaps only a definition of what is implied in the term abnormal, and corresponds to the fact that there are more faults than virtues in children.

Binswanger[1] traces the history of the idea of moral weak-mindedness. During the last third of the last century, it was frequently believed that this was an independent defect not necessarily involving any defect of intelligence. It is based on grave defect of the so-called ethical feelings and concepts. The juvenile criminal may be regarded as a morbid phenomenon in the social organism, perhaps as a peculiar anthropological variety, but never as insane, unless besides the moral defect there are signs of intellectual disease. This is the present standpoint of German psychiatry. It is hard to tell born criminals from those with moral weak-mindedness. Both show their anti-moral traits in childhood. So long as the defect consists exclusively in the obnubilation or perversion of moral and æsthetic qualities, it belongs in the field of criminal psychology and not in that of insanity. Only when the arrested development is found in the intellectual sphere or in an alternation of psychic processes can we speak of moral insanity or weak-mindedness. Very often ethical ideas may be learned and repeated without being anchored to the ego and without becoming a part of his individuality, but only when this assimilation has been made do ideas influence thought and conduct. The concepts must be given a feeling tone to effect purposive thought and action. Only when pronounced intellectual defect, or, if not this, characteristic psychopathic symptoms of disease, are present can the abnormal ethical development be ascribed to a morbid psychic *Anlage*.

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[1] Binswanger, Otto, Ueber den moralischen Schwachsinn. Berlin, Reuther, 1905, 36 p.

The germs of nearly all abnormalities can be traced back to childhood. To study the child, then, we must separate observation from conclusion.[1] Many mental disorders are avoidable with some resignation of social and financial ambitions. The ideal would be to examine the child so as to know all his possibilities and all his defects. Mental backwardness may be due to lack of good mental food or disorders of perception, perhaps of vision or hearing. The neglect of any chronic disorder is a grievous sin. We should know at once whether the dislike of essential things is due to real defect or is merely temporary and incidental. We must not play providence too much or be too paternal in education, nor must we, on the other hand, forget the enormous suggestibility of the child. It is easy, thus, to induce headache, nausea, fatigue, and if these things are spoken of before the child he soon begins to calculate the effect on the observer. Then comes lying. The measure of mental abnormality is the degree of the power of overcoming a symptom by will or education. We attribute far too much to heredity. In a case cited, one girl with a very bad moral heredity suddenly was discovered a thief and a liar; yet she had a sister who was placed with good people, who grew up in every way good herself. Our immigrants are remarkably transformed in one, two, and three generations. They are speedily Americanized in feature, form, and life. So, too, children of the same parents differ. The dread of heredity as fatalism is an awful thing. Inhibition should slowly grow up out of experience, as Spencer rightly urges. Tradition and authority are only one side of education, and heredity is the other. How much of previous experience does the child need to epitomize in order to grow up aright? The children of abnormal parents are likely to be exposed early to irrational modes of life We should always, therefore, strive to determine in unfavorable cases how much is due to surroundings and how much to really inherited constitution, or to determine the part of heredity. The author thinks the aim of education is harmonious development and not the accumulation of knowledge. It must meet the requirements of life. Heredity, nutrition, and development by function and practice should be studied. The principles of muscle and brain development are about the same. His own training of the hand did not take sufficient account of the entire arm, so that his finger work in piano playing was permanently injured.

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[1] Adolf Meyer. On the Observation of Abnormalities of Children. Child Study Monthly, May, 1895, pp. 1–12.

F. H. Hall[1] says there must be a sense basis. This all admit, but there must be emancipation from the bondage of sense, which may be overdone with the normal, but cannot be overdone with the blind or deaf child. Perhaps thought-power is, within limits, inversely as sense-perception, which may dull it. In the blind and deaf a broader basis of sense is necessary, but in the usual child a balance between hearing, sight, and between sense and thought is important. The ear is the avenue to the heart. The eye and hand are the chief sense basis for thought with the normal child in early life and the ear is the basis of the imagination.

Johnson added that the world owed an immense debt to Edouard Seguin, who showed that most defectives are largely normal and *vice versa.* The deaf are more selfish, suspicious, clannish, untruthful, less emotional, social, altruistic, live for and by themselves. Their friends now claim to make them normal, but their intelligence is far below that of the blind. The noises in nature and the use of the voice are hard to give any idea of to the deaf, and yet these create our sensibilities. The inferiority of the deaf over the blind is due to the language. They may receive more sense impressions but make less use of them. The blind are thrown back on reflection. They digest their mental pabulum better than the seeing child and perhaps have better teaching. But with normal children do we not rely too much on the eye? It is hard to mold bodily habits and mannerisms after the age of eight, or correct dull pitch or vocal stiffness after fifteen, imitation or perception in the deaf, or both, after eight, and interest in elementary work after ten or twelve, so that apathy is prone to set in at fifteen or sixteen. It is hard for the deaf to learn to read, but the blind do so rapidly. The deaf spell best and the blind excel in arithmetic. The teacher of the feeble-minded has to do with the very beginnings of mind. The study of the unusual child has introduced us to that of the individual child, has called attention to defects, the need of play, the value of the senses as shown in the applications of evolution, and has kept the social object in mind.

Dr. G. E. Shuttleworth[2] thinks that "a marked departure from the normal in one generation in the ascending direction is but too apt to be compensated for by a corresponding deviation downward in the next—or at any rate in succeeding generations. Nature dearly loves an average; and toward this there is a tendency in the psychical as well as the physical realm." In probably most cases precocity is morbid and goes with nervous instability. Indeed, the author concludes that "in the long run the specially trained imbecile became a more useful member of society than did his prematurely brilliant sister."

Carl Stumpf discovered an infant prodigy and appealed to Teutonic benevolence for means to cultivate it. Otto Pöhler's achievements were teaching himself to read at two; at four reciting the birth and death of many German emperors from Charlemagne down, also generals, poets and philosophers. The names of most capitals of the world, the dates of the chief battles of ancient and modern wars were known to him. He showed great interest in Latin, but was taught with difficulty to write the first letters of his Christian name, and did not wish to write at all.

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[1] Influence of the Study of the Unusual Child upon the Teaching of the Usual. Proc., N. E. A., 1903, pp. 987–998.

[2] Exceptional Children. Paidologist, 1899, vol. 1, No. 3, pp. 138–144.

Dugald Stuart had a precocious nephew, who lived to be about twelve, who is described by Lemaître at the age of five as sitting on a carpet, surrounded with books, knowing Latin, speaking English, French, and German, being a good geographer.

Infant prodigies lack staying power. Precocity is essentially abnormal. The human brain, as conceived by many teachers, is a kind of expanding bag to be filled up by a variety of useful and other articles till it shows signs of bursting. Abnormally rapid development of any organ involves arrest and degeneration of others. Society, however, loves these prodigies, the "Born-longs." Mozart composed a concerto at four, performed in public at five, died at thirty-five and went to a pauper's grave.

Moeller, in a thesis,[1] which attempts to diagnose grades of feeble-mindedness, devised a method which he applied to six cases, ranging in age from nineteen to fifty-three, and all without higher education. Defect is seen in want of memory images, associations, and false judgments conditioned upon them. The less the defect the more complex and intensive must the test be that is to detect it. Thus, the order of study should be first idiots, next imbeciles, and last "debiles," who, in his terminology, are nearest normal. There should be school inspectors, and weakness should be detected and subjected to individual treatment as early as possible. In cases of doubtful responsibility the German law prescribes that the patient shall be six weeks under observation. Moeller's tests began with the school studies with which the patient had greatest interest, with incidental suggestions and remarks thrown in, and then special attention was given to the relations of this material of instruction to practical life. Each topic of instruction was made the basis of questions—history, geography, zoology, botany, geometry, etc. Many questions concerning duties to parents, friends, society, and property were devised, to test moral insanity. The patient is asked why punishment must be inflicted, whether he feels inner reproach after theft, etc. One man was well furnished with ethical ideas, but the moral feeling-tone lacked breadth. Defects in interest were often thus detected. Tests pertaining to the calling of each person were often fruitful. Reduction of responsibility by fatigue is noted. Just as this thesis appeared, the writer read Ebbinghaus's combination method by feeling omissions in texts.

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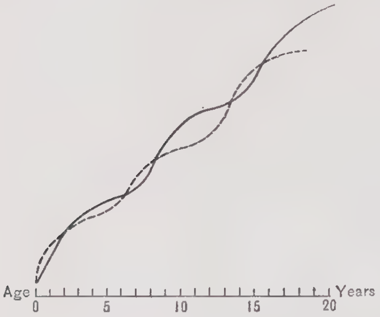
[1] Über Intelligenz-Prüfungen. Berlin, Schade, 1897, 32 p.



The Rhythm of Development.

Stern[1] thinks the tempo of psychic development in children shows a constant rhythmic alternation of fast and slow, and constructs the following curve as an approximate norm. This then makes against co-education even with younger children. The psychic, though far less known than the morphological metamorphoses are of far more practical consequence. Uniformity of development in different individuals exists and is seen not so much in identity at the same age as in uniform sequence of stages. Hence, whether a child develops slowly or rapidly, each passes through the same stages in the same order. In speech development, nounal, actional, relational, and qualitative stadia are often to be distinguished. Hegel's thesis, antithesis, and synthesis, Comte's theological, metaphysical, and positivistic, the distinctions between nativistic and active or sensorial and motor phases are marked. Similar rhythms occur in the history of philosophy. These distinctions, especially the older of them, are abstract and vague and need to be made more explicit and concrete, as indeed they are coming to be under the influence of genetic psychology, which can rescue some of these differences from their abstraction by giving them factual content. The antithesis, e. g., between receptive and reactive processes is synthetized when central processes develop. The causes of psychic evolution are: (*a*) outer, such as food, climate, mode of life, infection, the influence of the senses, of education, and of the milieu, including example, reading, association, suggestion, etc.; (*b*) inner, such as general and speech heredity, sex, and individuality. Both are always coöperate even in speech development. In the unfoldment of potentialities the inner and outer influences always converge, and instinct, temperament, imitation, and adaptation coöperate.

Ziehen,[2] in answer to the question, By what physical or psychic symptoms do we recognize in children during their first years congenital weak-mindedness? gives a number of norms: for instance, the circumference of the skull at the end of the first month of life averages 36 centimeters; at the end of the first year, 45; at the end of the second, 48; of the fifth, 50. He characterizes the micro- and macro-cephalic types of the cranial and other bones. Defects are matters of coördination, and to be extremely lacking in one respect some have attempted to compare with less variation in several respects. The writer then describes abnormal sensations and other physical signs of degeneration, both functional and structural. As for tests of intelligence, he would have them directed toward (*a*) memory, (*b*) formation of ideas, and (*c*) judgment or power of combination. *Merkfähigkeit* is stressed. Many children of nine or ten cannot count higher than three or four. Number tests are very significant. As to questions, very much depends upon the form in which they are put; those requiring definitions are far higher than those that require distinctions.

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[1] Tatsachen und Ursachen der seelischen Entwickelung. In Zeitschrift für angewandte Psychologie und psychologische Sammelforschung. Band I, Heft 1 und 2, S. 1–44. Leipzig, Barth, 1907.

[2] Die Erkennung des Schwachsinns im Kindesalter, von Th. Ziehen. Berlin, S. Karger, 1909, 32 p.

Channing and Wissler[1] took four measurements of the palates of 1,624 individuals, mostly children; viz., minimal distance between the first molars, maximum height of the palate, distance from the line connecting the first molars and the alveolar point, distance between canines measured horizontally from the base, these measurements having previously been found to be significant and based upon casts taken with the technique developed in dentistry. The general result was that the abnormal or feeble-minded showed more variability, and the variability increased with age, as compared with normal children. Males were more variable than females. These differences, however, when averaged, largely neutralized each other, so that the absolute size of the palate was about the same for defectives as for normals. Its width from the first permanent molars forward remained approximately unchanged from the ninth or tenth year of life, and probably there was little growth after the sixth year. The height of the palate showed a very slight tendency to increase with abnormals even between twelve and twenty. In length normal children reach their maximum about the ninth year, which was the average age for the eruption of the upper median incisors.

Madame Rousson collected photographs of normal and abnormal children—31 boys and 47 girls—and asked 10 men and women to guess their age. The errors were found to be greater for the abnormal group. The judgment of the women was more often correct than that of the men, and the estimate of teachers was nearer than that of others. Prolonged consideration gave less accurate results than immediate judgments. In the women's report sympathy and antipathy were often expressed, and sometimes great pity. Judgments in profile were less accurate than those in full face.[2]

H. Bosma[3] says psychogenic troubles are caused by disturbances of connection between the central, somatic nerve processes, and the mental phenomena. The deviation from the normal between somatic and psychic relations causes all sorts of motor and sensory troubles for which no anatomical substratum can be found. We all experience psychic knocks along our pathway through life, some of which are outgrown while others persist. First among these are abasia and astasia, where the patient seems to have forgotten how to stand or walk, but is otherwise intact. Chorea rhythmica, aphonia, mutism, stammering—all these may be caused in very delicate children by blows, by scolding, or even by an acute sense of being guilty, the expectation of getting punished, or the feeling of not being able to solve certain problems. Sometimes a change is helpful. Occasionally the methods of startling, of premeditated neglect, of disguised psychic means, such as cold water, electricity, or surprise by a joke, are effective; while conversely many perversions are due to punishments, or originate in the fear of teachers.

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[1] Comparative Measurements of the Hard Palate in Normal and Feeble-Minded Individuals. A Preliminary Report. American Journal of Insanity, 1905, vol. 61, No. 4, pp. 687–697.

[2] La lecture d'une physionomie. Bulletin de la Société Libre pour l'Étude Psychologique de l'Enfant. Juillet-Août-Septembre, 1905, pp. 695–700.

[3] Psychogenic Disturbances. Paidologist, 1900, vol. 2, No. 1, pp. 10–16.

M. R. Campbell[1] sought, in an institution where every child was under skilled observation all day, to correlate the physical and mental traits of nervous children. Seventy-five per cent of the children studied suffered from malnutrition and anæmia. Minute observations upon the effect of feeding on the different programmes, and upon elimination, pulse, emotional tone, etc., led to the following tentative results. The greatest hunger was shown at the end of the day. Preferred foods were better digested. Some digested meats, some starchy food, best. All wanted more sweets than were allowed. Elimination was very irregular, and that by kidneys far too infrequent, and only about one third of what it should be. With meat eaters, starchy foods were less completely digested. The relation of pulse and emotional tone to mental and physical activity and to food was abundantly confirmed. The æsthetic appearance of the table affected older but not the younger children. Smell was an appetizer, and music during meal time had a favorable result. The prohibition of conversation while eating helped mastication. On the basis of these preliminary results, further and more careful tests with dietaries and heat units, chemical analysis, examinations of the blood, etc., brought out other conclusions. The value of individual preference for both quality and kind of food was confirmed. A close relation appeared between pulse deviation and nonelimination, and also between super- and sub-normal mental effort. Young nervous children needed daily hot baths, which had a very favorable effect upon sleep, and this in turn greatly improved emotional tone. Children from five to twelve required from ten to fourteen and fifteen hours of sleep per day. The best sleep and all the above good effects were best obtained when the heaviest meal was in the evening. Children from five to twelve require at the very least two quarts of water a day, and nervous children should be fed five or six times, and also should be given more carbohydrates. Children under nine should be given at least six lumps of cut sugar per day. Most of these cases have obstruction in the large intestine, but chronic malnutrition was more often associated with indigestion in the stomach and middle intestine. Stomach dyspepsia made children cross, sensitive, fretful. The obstruction of the small intestine caused variability and erratic conduct, while that of the large intestine brought stupidity, languor, headache, melancholia, moodiness.

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[1] Some Laboratory Investigations of Subnormal Children. Proc., N. E. A., 1904, pp. 744–754.

Fernald characterizes imbeciles as generally more or less misshapen in form, feature, palate, of which Dr. Walter Channing has shown the great importance, and says they often have excellent senses but their spontaneous mentation cannot get far away from their sense experience, so that they are unable to think, reason, attend, adjust to new conditions, judge. They are weak in will, often very sly, boastful and egoistic. They are unsympathetic, and often torture animals and are very unmindful of the feelings of those about them, and quite prone to take great joy in causing trouble. In this they are sometimes extremely clever, cunning, and sly. They are prone to lie when the truth would serve them better; lack shame and modesty, very rarely blush. They not only bear pain surprisingly well, but often seem to welcome it as if they had a hunger for excitement, and being normally dulled for it instinctively love every vivid experience. So, too, they often crave tobacco, alcohol, and their taste may be perverted. They are usually very lazy, with little foresight. Hence they risk severe punishment for slight present gain, and this makes them incorrigible. They lack power of continuous application. Thus many are criminals who have committed no crime. They often gloat over crimes they hear of. Some are very prone to sudden, perhaps apparently causeless, emotional outbursts; they lack ambition and cannot take general points of view, sometimes show speech defects, and it may be perversities. In a word, their traits are to a great extent the opposites of those of normal children. Yet normal children of from eight to twelve show many of these traits, despite the repression which their nascent higher powers exert upon them, so that the imbecile has been spoken of as the normal child of eight or ten with the lid off, with none of the conventional restraints and repressions. True moral insanity consists of perversions of will or feeling, with perfect normality of intellect. This probably never exists; if it does, it is very dangerous because so hard to detect, although justice has often been perverted both ways. It must not be forgotten also that it is highly probable that about every subnormal child, perhaps of every degree, passes a critical stage, perhaps a different one for different faculties, in which, could it be discovered and the proper means applied, his development often to a very much higher stage could be assured. These nascent stages of possibilities, common, doubtless, to all types, may be detected by casual observation, but more often need very systematic and painstaking investigation, and even then may be missed. The lower grade the child, the earlier its development stops. Hence one of our questions should be to find these vital nodes and to touch them at the right instant. Again, another trait of feeble-mindedness is disproportionate growth of parts. Idiots may be geniuses (*idiots savants*), e. g., in music, color, drawing, number work, exact literary memory, etc. Thus we must discover if possible in each among the many arrested the one strong or perhaps supernormal faculty. These cases are always fraught with fascinating suggestions to the thoughtful observer, because we are doubtless all arrested and we, too, have had critical moments, and some among our good and bad faculties are over- and some under-developed.

Little is now done in this country to train teachers for the feeble-minded, although they usually command higher salaries than public school teachers generally. Here, then, is a great need which has been partially met by several tentative efforts—summer schools, special academic lectures, etc. New York City now has seventy-five ungraded schools for backward children sifted from the regular classes, and it is now proposed for the benefit chiefly of these teachers to have at the Children's Hospital on Randall's Island special courses for them and for such others elsewhere as may desire to put themselves abreast of modern theory and practice in these lines. The pedagogic material for such a course is rich, the literature copious, and, moreover, if adequately organized, it would be of high general cultural value as shedding here and there new and brilliant rays of light upon human nature. It would certainly seem just and proper not only that schools and classes for such children, but that the requisite teacher for them, be a part of the municipal school system. One very special practical topic that should be taught in every such course is how to find the right employment for every imbecile possible outside an institution, and how to keep him in it and to make him successful by constant supervision and help, a function that appears to be admirably developed in the English House of Help.

One thing is vital, viz., that defectives, under whatever name, laggards, psychasthenics (see *Journal of Psycho-Asthenics,* 1896–1910), morons (from *μωραίνω,* to be foolish), proximates, for those nearly normal, mongoloids, mattoids, should be excluded from the regular school classes. In the interests of normal children this weeding of the dwarfed stalks should be pretty thorough, and the standard below which they are excluded should not be too low. They not only take more than their share of the teacher's time, but are often sources of bad habits, and help set a slow pace for the class. It is also very important that they be detected early, to avoid leakage of effort as well as for their own interests. This is hard on parents, but teachers often fail to recognize the higher grades of imbecility. Hardly ever is there one without some of the scores of stigmata of degeneration.[1] Of course defective children need to enjoy life, and farm colonies, like the Letchworth Village in New York, enable them to do so.

By the law passed April 15, 1909,[2] France has put herself in the front rank of modern educational progress in the work for children who, for any reason, are not in a condition to profit by the regular school work. A commission appointed by the Ministry of Public Instruction found approximately 20,000 of these backward and unstable children apart from abnormal cases which properly come under medical supervision, i. e., idiots, cretins, and epileptics, and must be cared for in medical institutions. The law provides for two types of establishment: First, special classes (*classes de perfectionnement*) annexed to the public elementary schools, for children of school age (six to thirteen years) who, while needing special instruction, can profit by this while remaining in their own homes; second, independent schools, providing entire care for those children whose defects are sufficiently serious to make residence in the school necessary, and also for children who, living in sparsely settled districts, are received either as day pupils or partial boarders. These independent schools furnish both primary instruction and manual training and retain pupils to the age of sixteen. Pupils in the special day classes who toward the age of thirteen show themselves incapable of learning a trade in the usual way may be admitted to these independent schools. The classes are never coeducational, although, as a matter of economy, the independent schools have departments for both sexes, which, however, are kept strictly separated. Teachers for these classes must secure their certificate of fitness by passing a special examination which includes a practical test in one of the existing classes. In April, 1910, there were seventeen of these special classes in actual operation, and the establishment of others is being pushed as rapidly as possible.

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[1] Mental Defectives, their History, Treatment, and Training. Phila., P. Blakiston's Sons & Co., 1904, 368 p. See Dr. W. M. Barr's notes on the subject, with bibliography, grouping them under defects of head, face, ear, eye, skin, extremities, generative organs, habits.

[2] Législation des établissements spéciaux aux enfants arriérés, par Louis Gobron. Revue Pédagogique, 15 Juin, 1910, pp. 563–579.

The London County Council provides both day and some residential special schools for the education of the blind, deaf, mentally defective and physically defective children resident in the county of London. For mentally defective children there are 85 such schools, and for the physically defective 31. In the year ending March 31, 1909, there were 6,513 mentally defective and 2,544 physically defective (exclusive of the blind and deaf) provided for in these schools. The number of nurses in the schools for the physically defective was 26, and, in addition to this, 167 attendants, ambulance helpers, cooks, bathing women, and midday attendants were employed in connection with the special schools. The Royal Commission on the Care and Control of the Feeble-minded, after an extensive inquiry into the problems concerning different types of mental defect covering a period of four years, made its report in 1908. This report was very favorable as to the work of these special schools. The after-care committee for mentally defective children has been of great aid not only in securing employment for these children on their leaving school, but in keeping records and preparing returns on the subsequent life of these children.[1]

The legislature of California[2] has this year passed a law establishing Health and Development Supervision in the public schools of the State. This law is at present permissive, but will doubtless be made mandatory after a preliminary trial. The law authorizes school trustees or boards of education—

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[1] London County Council. Report of the Education Committee. Part III. Special Schools and Industrial Schools. P. S. King & Son, London, 1910.

[2] Health and Development Supervision of the Public Schools of California, by George L. Leslie. Psychological Clinic, April 15, 1910. Vol. 4, pp. 33–39.

"(1) To establish annual physical examinations of school pupils, with a follow-up service to secure the correction of defective development, thus maintaining continuous supervision of the health and growth of children and youths.

"(2) To require physical examination of all candidates for teachers' positions in the public schools, to determine their vitality and efficiency; to make such further examination of teachers as may be advisable to determine their continued fitness for work; and to determine what amount of work shall be required of the teaching force of the schools, consistent with efficiency and continued service.

"(3) To adjust school activities to health and growth needs and development processes of pupils.

"(4) To study mental retardation and deviation of pupils in the schools.

"(5) To exercise expert sanitary supervision.

"(6) To organize a corps of educators, experts in physiology, hygiene, and practical psychology, who can skillfully diagnose defective growth and development, and take more intelligent steps to conserve children and youths. The law provides for the coöperation of this class of educators with skilled physicians.

"(7) The law by implication leaves to city boards of health all matters pertaining to contagious and infectious diseases as a matter of public health. It implies the close coöperation of boards of health and education."

A special course of training along these lines is now being prepared by the Department of Education of the University of Southern California, and Leland Stanford University is ready to give training to those preparing to become examiners. These Departments of Health and Development had already been established at Los Angeles, Pasadena, Berkeley, Oakland, Pomona, Redlands, Hollywood, and Monrovia before the close of the spring term, and doubtless others were ready to begin work at the opening of the fall term. California is the first State to thus give legal recognition to the skilled educator with Child Study training.

This question of segregation has always been a grave problem.[1]

If all feeble-minded boys and girls did dangerous or injurious things, this would call attention to them and they would be placed where they could do no harm. They would also be counted. Now many suffer from more or less feebleness whose defect is never known. The almshouse and other institutions are full of subnormal children, and special classes seem more and more necessary and waiting lists increase. In Indiana, in 1909, 800 degenerates were unsexed. Superintendent E. R. Johnstone objects to "the partial operation, which leaves all the passions and desires, for much disease has resulted. The complete operation is entirely satisfactory." This or custodial care is the alternative. We have stressed the three R's far too much. We have taught feeble-minded children much they cannot understand. Much that is plain to us, says Johnstone, is to the feeble-minded like the jabberwock that has "ears like a wunk, a tail like a skeewink, feet like a wamptescan, a head like a squidicum-squee, and a body like a rotorette." The parents think there is little the matter with their subnormal child, and note his memory. This adds to the facility of deception. We must praise and not find fault. Johnstone's institution makes much use of a secret society with its password, "Do you belong," and its sign, a smile. When one is oppressed, to have a feeble-minded child give the password and to be obliged to give the sign is stimulating.[1]

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[1] See W. E. Fernald's History of the Treatment of the Feeble-Minded, from Itard and the "savage of Aveyron," in 46th rep., Mass. School for Feeble-Minded, 1893.

Provision for Gifted Children in Public Schools, by J. H. Van Sickle. Elemen. School Teacher, April, 1910. Vol. 10, No. 8, pp. 357–366.

Das einzige Kind und seine Erziehung, von Dr. Eugen Neter. München, Gmelin, 1906, 51 p.

The Blind.—Almost since Locke's thesis that all knowledge comes through the senses and the Cheselden case of a congenitally blind boy of thirteen restored to sight, great philosophical interest has been awakened in this class of defectives. Although many blind prodigies had appeared, such as Mlle. Walkier, who learned to speak and write in several languages; Saunderson, the mathematical professor who succeeded Newton at Cambridge; Blacklock, the Scotch litterateur and poet; the night-working chemist, Lendtre; Mlle. von Paradis, the pianist, and many other celebrated blind people who had invented diverse ingenious schemes for reading and writing language, music, geography, etc., for their own use—the condition of most blind persons was pitiful. They "vegetated in almshouses, moped in corners, begged on the streets," were degraded, often filthy, were made the butt of ridicule and of coarse practical jokes until Haüy, "the father of the blind," began his epoch-making work in 1798 and finally demonstrated his embossed type on young Lasueur to the Royal Academy, to their astonishment and enthusiasm, which led to the first school for the blind.[1] Amazement that this class of defectives, instead of being half demented, should show such ability, was great and widespread. Schools were soon established in Europe and the Braille script (1829) and the New England Asylum (1829), and Dr. Howe and the Perkins Institute in 1833 followed. There are to-day some 65,000 blind people in the United States, 3,300 in Massachusetts, and if we can infer from English statistics, only about 20 per cent of them became blind before five years of age. In Great Britain, the average age of becoming blind is thirty-one. Nearly 40 States in the Union have asylums or schools for the blind, but nearly $\frac{51}{61}$ of them are outside the school. At latest accounts, there were some 1,300 books in type for the blind in this country. Several public libraries have departments for them and lend and send freely these books, bulky as they are—the Bible, e. g., occupying 44 volumes. A national and subsidized printing house of Louisville, Ky., some forty years old, is constantly increasing its catalogue lists and plates. At first, most publications for the blind were religious, but of late, much standard literature has been made accessible to them in Latin, and various modern languages, including some 80 short stories. The Perkins Institute alone sent 4,507 books in a year to 872 readers. Germany has a central library for the blind (1903) at Hamburg. The British and the Foreign Blind Association (1902) cares for both education and employment and prints *The London Weekly Mail* in Braille. Since 1896 we have had an American association for visitation of the blind, and Massachusetts employs 4 teachers of adult blind in their homes. There are 4 kinds of type: the Boston line, the New York point, the Braille, and the Moon. The latter is easiest, and most used in Germany. It is a serious thing for a blind person, especially an adult, to learn finger reading on any form of embossed type, but having been learned, it gives the intensest joy and courage, and it is sometimes but a matter of a few days to pass over to the smaller Braille type and add its resources. Boston has a nursery for blind babies since 1892, where some 3,300 have been treated and by wholesome instruction concerning ophthalmia neonatorum many children have been saved, wholly or in part, from this subtle and insidious cause of so large a per cent of blindness in early life. The German policy for the most part is a general education to fourteen years of age, with occupation later aiming at self-support. The cottage or pavilion movement is lately making much headway against the old congregate system, although a common kitchen and dining room are generally maintained. Suburban cities are more often chosen, both by public and by many private institutions, so that it is often remarked that the blind institutions are located on the most sightly situations.

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[1] There are three periodicals in the United States devoted to the study and welfare of the feeble-minded:

Journal of Psycho-Asthenics, published at Faribault, Minn. Founded, 1896.
The Training School, published at Vineland, N. J. Founded, 1905.
Psychological Clinic, published at Philadelphia, Pa. Founded, 1907.

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[1] See M. Anagnos. Education of the Blind. Boston, Rand, Avery & Co., 1882. Also, E. E. Allen, Education of Defectives, Columbia University Monographs of Education. No. 15. 1900. See also Preventable Blindness, by N. Bishop Harmon, Lond., Baillière, 1907, 109 p. W. H. Illingworth. History of the Education of the Blind. Sampson Low, Marston & Co., London, 1910.

Of the utmost practical and theoretical importance was the now far too little known contribution of G. Heermann (Ueber die Bildung der Gesichtsvorstellungen aus der Gesichtsempfindungen—Helwing, Hanover, 1835), in 1835, who showed by a minute study of 14 cases who became blind before five years of age that they never dreamed in visual terms, while the 35 who became blind after seven did so. Thus, the critical age for eye-mindedness in dreams and probably in ordinary waking imagery and mentation is from five to seven. This law of course is of cardinal import for both science and the pedagogy of the blind. Despite Kitto's "The Lost Senses," Miss Lamson's "Life and Education of Laura Bridgman," Donaldson's "On the Brain of Laura Bridgman," and Hall's study of "Laura Bridgman," despite Helen Keller's "The World I Live In" (1908), a classic text for every psychologist, and a few more special studies, including the prize study of causes by Dr. Fuchs,[1] based on 2,528 cases, there is not a single comprehensive work on the psychology and pedagogy of the blind. Every teacher notices traits sometimes called "blindism," like vigorous and persistent rubbing of the eyes, flicking the hand and fingers before the face, biting the nails, whirling about, rolling the eyeballs, rotating the head, looking back and forth, blind-mindedness in those early blinded, including the inability to conceive why a ray of light cannot go around a corner as sound does, why things seem smalled down by distance, conception of what color means, tendencies to intensive sense stimulation, including masturbation, indisposition to move, querulousness, restlessness, embarrassment in the presence of others, especially of seeing persons, all conception of what they have lost, the passion for music, their weak and inadequate lungs, muscles, due to their shut-in lives, their alleged but unnatural disposition to religiosity, the various reflexes and automatisms, like face-making, which blindness encourages, because the blind do not have a mental picture of their own physiognomy, the absence of any standardization of the degrees of blindness, particularly of its slighter forms, including squints, excessive nearsightedness, etc., and the effect of all this upon the mental life have never been carefully studied, and this is not to the credit of psychologists or of teachers of the blind or heads of institutions. This would probably tend to be remedied if we had somewhere in the country what is now greatly needed, a central normal course for those who are to teach the blind. The time will doubtless come, sooner or later, when all the larger institutions will have trained psychologists who can not only make accurate diagnosis with the proper instruments at their disposal, but when we shall have a correlation of the now too scattered but highly suggestive material in this field. It is encouraging that even very short courses are now being offered in a few of the advanced normal schools and in the educational departments of colleges in this direction. Laws concerning the care of and the assistance of the blind, their mendicancy, the administration of institutions, vocations suitable for this class of defectives, have occupied the time of those concerned. There is no reason why hereditary studies, such as have been so illuminating for the deaf, should not be made as thorough for the blind in order that we may know more definitely how to pass from the stage of amelioration to prevention.[1] In recent years, investigations have proved a large percentage of blindness is preventable. Among its causes, ophthalmia neonatorum is most frequent, Reinhart finding forty per cent of the cases investigated in Germany, Austria, and Holland due to this cause, Claise in Paris forty-six per cent, Magnus in Breslau thirty-four per cent, Katz in Berlin forty-one per cent, and Harman in London 36.36 per cent. As this disease is now known to be due to specific infection, which can be controlled and loss of sight prevented if treatment is given as soon as the first signs of the disease appear, public measures of prevention are now being taken. In Prussia, as early as 1894, a book of rules was issued for midwives, commanding them to call a doctor for all such cases. In 1902 the New York Board of Health declared ophthalmia neonatorum a contagious disease which physicians must report promptly to the Health Board. A number of other states have followed New York's example. In France, a law was passed in 1903 making ophthalmia neonatorum an epidemic disease which must be reported. In England and other countries public opinion is being aroused through reports and pamphlets giving information as to the character and seriousness of this disease. Massachusetts is issuing bulletins to diffuse information for the prevention of needless blindness.

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[1] Fuchs, Ernst, Ursachen und Verhütung der Blindheit. Wiesbaden, 1885, 243 p.

A century and a half ago there were three schools for *deaf-mutes,* the first, in Paris, founded by de l'Epée who, seeing two deaf-mute sisters conversing by gestures, based his system of teaching them upon this natural sign language. Meanwhile, Heinicke, in Dresden, and Bradwood, in Edinburgh, taught articulation speech and lip-reading. In 1815, after considerable public agitation, money was raised and a young Yale graduate, T. H. Gallaudet, was sent abroad to study methods. He found in England that the teaching of the deaf was a business monopoly and not a philanthropy, and he was excluded after many vain endeavors, but spent the last three months of the year in Paris and so imported the French sign method into this country, opening in 1817 the first permanent school at Hartford with 33 pupils. Other states and cities soon followed. In 1864, Congress took the unprecedented step of establishing a deaf-mute college, which now confers degrees, at Washington, under the son of the pioneer. Unlike the blind, deaf-mutes are born so or become so early in life before language is acquired and are dumb merely because they are deaf. Signs are ideographic and contain little or no suggestion of phraseology, so that their content might be put in very different ways by different persons. The gestures taught are mainly manual. Its terms are living pictures and dramatic action. The oral teacher manipulates the mouth, perhaps with a tiny paddle, has the child imitate movements and develops articulation with mouth consciousness. This is very slow and mechanical at first because the ear function, which compares the oral product of the speaker with that of others, is absent, so that instead of sounds, the deaf-mute must guide his utterance by efferent motor sensations and by touch and a sense of position. Rigorists make the extreme claim that the best results are obtained if all sign gestures are constantly repressed from the start. Most now agree that speaking and lip-reading, which take these unfortunates out of association with only those of their own class, are necessary if they are to be made real members of a community and live with normal people and that this is the goal. Many, however, believe that some sign language at first prevents arrest or atrophy of the powers of expression and gives needed vent to psychic processes during the prolonged stages of apprenticeship to speech. Talk is very hard to acquire and only a few gifted pupils, even after long apprenticeship, are able to speak intelligibly to strangers, and their articulation is often not only disagreeable, but straining and even distressing to those who hear them. Lip-reading, too, is possible only if there is considerable distinctness of articulation, for it is a language based mostly on labials aided by dentals and linguals, so that there is constant uncertainty. Now, the few deaf-mutes who have acquired the power to speak and to lip-read often tend to lapse after leaving school to using signs or perhaps to dactylology. No geneticist can disparage the original form of utterance out of which probably speech itself grew in the development history of the race, least of all, those who know what the sign language really is and can do and has done in the world. At its best, its ingeniousness and attractiveness as a mode of utterance are great and it can do many things that speech, even at its best, cannot. Pupils who come to deaf-mute schools are usually already made sluggish for want of a vehicle through which to express their psychic states and processes and are thus in imminent danger of permanent arrest. If it be true, as is often said, that the two methods are mutually exclusive, it is because nature always inclines the child to signs, because they distract far less from the subject matter to the form.

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[1] Blind schools in the South have a color department, and in many parts of the country stress novelties like skating, coasting, deck hockey, running tracks with rings sliding on ropes, telephone switch boards, etc., although broom, mattress- and hammock-making, chair-caning, feather dusters, despite the condemnation which modern hygiene has meted out to them, weaving, binding, etc., maintain their old place. Michigan has not only a school, but a unique employment institution for the blind.

The oral method came into this country late from Germany and was not securely established until the Clark Institution was founded at Northampton in 1867. Now, everywhere the tide seems setting toward articulation, even in France. A. G. Bell found that his father's visible speech, in which the letters show the position taken by the organs involved in producing the sounds they represent, could be used to make the oral teacher more effective and when, in 1890, the American Association for the Promotion of Speech among the Deaf-Mutes made him its president, he endowed this work. Most schools for deaf-mutes are eclectic, and Allen[1] well says that in the education of the deaf this country leads the world and has the best journal, viz., *The American Annals of the Deaf* (1856), edited by E. A. Fay. The Volta Bureau, established with a prize of 25,000 francs given Mr. Bell by the French Government for inventing the telephone, collects and diffuses knowledge upon the subject and is a unique and in some respects a model institution. The telephone was discovered by him in trying to devise an apparatus by which vibrations could be transmitted to the deaf. Modes of teaching speech to the deaf and phonology are taught in several normal courses in the country, and the Washington College has several fellowships. Decentralization was begun by Wisconsin, which paid a teacher to go and work wherever a half dozen deaf-mutes were found. The age of taking pupils has been steadily lowered as it should be under the oral method, even to the age of beginning to talk. Thus, kindergartens for the deaf are often provided to give them material for experience. For this class of defectives, everything taught is for the sake of language. There have been several national conventions of educated deaf-mutes. They strongly tend to associate with each other and form a class and perhaps tend toward a special variety of the human race. Many and valuable have been the statistics bearing upon the heredity of this defect which show the probability that the child of two deaf parents will inherit this infirmity. Thus, for the field of eugenics, we have here a vital practical question whether or not they should intermarry and bear children or should even become parents with a normal mate.

Industry must always be taught, for even if deaf-mutes cannot speak, they must be self-supporting. Printing is one of the best occupations and almost every institution now, says Allen, prints its own journal. It aids their speech development and is almost as helpful for them as music is for the blind. There are now about 50 State institutions in this country besides many private ones. England has an association and a training college for oralism, with a two years' course especially for the education of governesses, while Germany has a national *Verein* and its oldest institution at Breslau celebrated its seventy-fifth anniversary in 1904. Texas has a school for colored deaf-mutes. In most Western schools, agriculture is stressed as an employment. Most private institutions are strongly religious. Like, although perhaps rather less than, the blind, deaf children are liable to be spoiled by excessive tenderness on the part of parents.

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[1] Allen, E. E. The Education of Defectives. Columbia Univ. Monographs on Education in U. S., N. Y., 1899. 51 p.

A list of the *deaf-blind* in the United States and Canada has been compiled by William Wade.[1] This list includes 53 who have been blind from infancy or early childhood, 34 who have lost one or both senses after maturity, and 22 partially blind and deaf or one sense entirely lost and the other imperfect. All of these, with the exception of Julia Brace, who antedated Laura Bridgman, have received more or less education. Texas has, since 1901, made state provision for these afflicted children, who are now educated at the School for the Deaf at Austin. Perhaps the most notable success in the education of the blind-deaf in Europe has been achieved by Sœur Marguerite, of the Larnay convent, who in 1899 received the Montyon prize of the Académie Française for her untiring work in the education of Marie Heurtin,[2] born blind and deaf in 1885.

Speech Defects.—Many statistical investigations show us that hundreds of thousands of children are suffering from speech defect, although in almost all its phases these troubles are curable. They usually originate in childhood, says Dr. E. Conradi,[3] so that generally their first beginnings go beyond the patient's memory. Hence the malady may be classed as a children's disease. According to the statistics of this writer, in 1904 there were nearly half a million children with defective speech in the schools of the United States. "That stuttering and stammering do not necessarily imply a mental weakness is admitted by probably all who have given attention to the subject, yet a child's intellectual development may be seriously and often permanently impaired from this cause." They tend to be shut up and introspective and lack the alertness and self-expression necessary for mental growth. Dr. H. Gutzmann, perhaps the chief authority in this field, found that of 800 stuttering children, 10 per cent of their parents admitted that this defect was the cause of their children's being behind in school. Westergaard[4] found 790 cases out of 34,000 Danish school children. Assuming 100 in the class and marking so that one designates the head and 100 the foot of the class, stuttering children had an average of 55, those who nasalized 60, those who stammered 67, those who lisped 61. Thus all were in the lower half of the class. If age be averaged, it is found that those with these defects are older than the average. Another table showed that 601 Hamburg children with defects were not regularly promoted and that the majority are about a year behind their class. In general, this conforms to Conradi's study of 87,440 school children in six American cities, the age of the stutterer being higher than that of the average child. Thus there can be no doubt that there is a relation of cause and effect here, so that with the removal of the speech trouble normal intellectual development becomes possible. Stuttering is often due to psychic depression and is greatly enhanced by mockery. A number of suicides due to this cause are on record. Thus the child with speech defects is handicapped, lacks appreciation, is derided by others, and does not find the proper expression.

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[1] The Blind-Deaf. Indianapolis, Ind., Hecker Bros., 1904. 149 p.

[2] Une Ame en Prison. Paris, Oudin, 1903. 89 p. See also W. Jerusalem; Marie Heurtin, Erziehung einer blind und taub Geborenen, and Was lehrt uns die Erziehung der taub-blinden Marie Heurtin? Österreichische Rundschau, 15 Juni 1905, Band III, Heft 33.

[3] Psychology and pathology of speech development in the child. Ped. Sem., vol. 11, No. 3, September, 1904. pp. 328–380.

[4] Monatsschrift für Sprachheilkunde, Jan., 1898, vol. 8, pp. 1–8. See also Lectures upon the mechanism of speech, by Alexander Graham Bell. Rep. from the

G. Rouma[1] tested 1,072 children of a school in the poorest and most populous part of Brussels to detect speech defects. He found the following proportions of *blésités* (those making omissions, substitutions, or deformities of consonants): in the primary class, 27 per cent; in the next class, 26 per cent; in the third class, 30.7; in the fourth class, 18.1; in the fifth class, 27.7; and in the sixth class, 18.8; or an average of 26.1, showing that these troubles diminished with successive years. Of stutterers there were in the first five years collectively on an average only 1.2 per cent, and this conversely increased with age. Thus *bégaiment* seems to establish itself during the school period. Among the faults of the *blésités* were the omissions of j and ch, s and z, of sonorous and mute consonants and nasal obstructions. Many children leave school without being relieved of these speech defects, which cause a considerable prejudice in their studies, especially in current reading.

Rouma also made a general investigation of 15,848 children. Of these 9,155 were boys, 11.9 per cent of which had speech troubles, 10.3 per cent being *blésités*. His curves here show that the proportion of the latter diminishes from the first to the sixth year, while that of the former increases. Schleissner found of 600 Prague pupils only 6 per cent stuttered, more boys than girls, and he also found 14 per cent of the boys and 7.5 per cent of the girl *blésités*. He distinguishes also those affected slightly, gravely, and intermittently

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Proc. of the First Summer Meeting of the Am. Soc. to Promote the Teaching of Speech to the Deaf. N. Y., Funk & Wagnalls Co., 1906, 129 p. Die Silbenmechanik als Grundlage des Artikulationsunterrichts der Taubstummen, von Wilhelm Paul. Metz, Scriba, 1908, 76 p.

[1] Enquête scolaire sur les troubles de la parole chez les écoliers belges. Internat. Archiv f. Schulhygiene. II. Bd., 1. u. 2. Heft. 1906, pp. 151–189.

and finds this proportion differing a good deal with different ages. This serious cause of arrest should lead to greater attention to minor defects of language in the lower grades of all schools. Errors should be persistently corrected, and to prevent the retardation in studies and the deformation of character which this causes, the author desires to have an institution in Brussels like the central establishment of Vienna, presided over by Coën, like the medico-pedagogic institute of Budapest, of which Ranschburg is the head; like the special instructors in normal schools of Milan and Rome, the Minister of Public Instruction having lately appointed a specialist in speech defects in addition to the work done by Tombellini, de Sanctis and Ferreri. Denmark, too, has a special government school founded in 1898. One at the Hague was established in 1902, presided over by Van Lier. At Amsterdam a private society, founded 1894, has been subsidized by the city for this end, and a school for backward children having speech defects has been established in that city. Paris has had gratuitous courses for orthophony since 1904.

Germany has realized a greater progress in this department than any other nation, owing largely to Minister von Gossler, who, realizing the hindrance to mental development and the social handicap of these children with defective speech, sent a circular into all the cities of the German Empire requesting them to follow the example of Potsdam, which had established the first institution for the correction of defective speech, the value of which was already evident. This appeal of the Minister of Education produced immediate results. More than three hundred teachers were sent by the municipal administrations to take the courses given by Dr. Gutzmann[1] at Berlin. Between 1890 and 1896, 65 courses for the correction of defective speech were given in 35 cities. In these courses 1,290 children were treated, of whom 72.7 per cent were cured, 23.7 per cent bettered, and only 3.6 per cent were not benefited. At Berlin, in the years 1901 and 1902, 21 courses were given, and pamphlets giving directions for teachers and parents to follow were printed at government expense and distributed gratuitously. Since 1891 a speech clinic has been conducted by Dr. Gutzmann in the Schöneberg ambulatorium. In 1908, however, the number of patients and the demands of physicians and students so greatly increased that it became necessary to open an additional ambulatorium at the Polyclinic Institute of the University of Berlin for the treatment of speech disturbances. This clinic, because of the large number of patients treated, affords unexampled opportunities for medical students and physicians and specialists to study along this line. Although Germany has taken up this work more completely than any other nation, investigation having shown some 200,000 children of various degrees of defective speech in her schools, the social significance of this defect has been recognized in other countries, and the necessity of training teachers in the methods of correcting this difficulty has been recognized. Courses have been established in different cities of Switzerland, and at Zurich, in 1899, a colony for the treatment of children suffering from speech defects was organized by the Commission d'Hygiène scolaire. Zurich has also established an educational course for teachers in these special classes. Vienna has several courses, and at Buda-Pesth the government has founded a school under the title of Institut Médico-Pédagogique, which has departments for feeble minded, for deaf mutes, and for children with speech defects. In Italy, both at Milan and Rome, pupils of the normal schools are given special training in the methods of correcting speech defects, and recently the Minister of Public Instruction has organized courses in the method of correcting speech defects for the primary school principals of central Italy. At Copenhagen the government founded in 1898 a special school for troubles of speech. The pupils are boarders and remain four weeks in the institution; sixty per cent of the children treated here have been cured and twenty-two per cent benefited. In France, Paris has public and gratuitous courses in orthophony, organized in 1906 by the National Institution of Deaf Mutes. The London County Council recently (1910) appointed Dr. Ernest Jones to conduct a research on the articulatory capacity of children for consonantal sounds. Of the 650 children already examined, 200 have been found to have speech defects in varying degrees. This work will undoubtedly lead to the establishment of remedial agencies similar to those already in operation on the Continent.

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[1] Dr. H. Gutzmann, Erster Jahresbericht aus dem Ambulatorium f. Sprachstörungen im Poliklinischen Institut für innere Medizin der Universität Berlin. Monatsschrift für Sprachheilkunde, vol. 18, 1908, pp. 265–275.

There are at present known to the author three clinics in the United States for speech defects: Dr. Scripture's, in New York; the Speech Clinic at the Philadelphia Polyclinic and College for Graduates in Medicine, directed by Dr. Hudson-McKuen since 1896; and the work done by Dr. Clara Towne, also in Philadelphia.

Homes and colonies for epileptics are now provided by ten of our States and we have a national society for their study and care, as England has had since 1893. In some 80 per cent of the cases the attacks began before the age of twenty, and twelve to fifteen is the age of greatest liability. Not very many of these patients are insane and in some the attacks are very mild and not always recognizable, although where the chief early symptom is loss of consciousness, the deleterious effects are often worse than where convulsions are the chief feature. Not a few epileptics in their paroxysms are dangerous to themselves and family, their friends, society, and property, and so need constant care, and where they are from poor families this means institutional care. They constitute a unique class by themselves. In schools an attack causes consternation, both to pupils and teacher, and in several large cities special ungraded schools for them have been prepared or at least proposed and given up, as in Chicago, because parents objected to their children being with others of their class. The classical studies of Hughlings-Jackson, in England, long ago made this disease perhaps the most interesting and instructive of all the psychoneural disorders that have no characteristic pathology. Chronic epileptics have their own mental traits, as Ernest Jones has shown, but each case must be carefully studied before prescribing treatment or occupation. Epilepsy is strongly hereditary, so that those afflicted ought not to have children. In the report of these institutions nothing is more often and earnestly pleaded for than experts to study each case, with all the resources of modern medicine, neurology, and psychology at their command, but, in fact, the superintendent, although a physician, is usually too absorbed in administrative details. There can be no doubt that the field here is as rich as that recently opened in the study of *dementia præcox* or hysteria. These patients need to be especially sheltered from excitement, emulation, and competition, and the epileptic diathesis of sulkiness can be met only by fit and carefully prescribed regimen and occupations.[1]

The first organized work for *crippled children* in the country was in 1863 by a New York society for the relief of the ruptured and crippled under Dr. James Knight, who recognized the value of both mental and physical training as an adjunct to medical treatment. Some of these associations are aided by the municipality and have special appliances, including desks, free transportation, vacation homes, and perhaps free dinners. London has 79 cripple parlors, where weekly meetings are held for recreation and instruction. "In this field, the need is much greater than the relief, and there are long waiting lists in most institutions, and the supply of cripples is undiminished, showing that the social trouble lies deeper than relief and prevention and this must be sought in the alleviation of social conditions," says Dr. Theodate Smith, who has collected a list of some 36 of these institutions. Three of them are state institutions for this class alone. There are hospitals, homes, day schools, and industrial training wherever this is possible.

In the care of cripples Germany has led with the first journal,[2] a *Jahresbericht*, and an international congress. We have here, too, the most comprehensive statistics and probably the best treatment. In all Germany there are about 80,000 cripples of school age and

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[1] Epilepsy, a Study of the Idiopathic Disease, by William Aldren Turner. London, 1907, 272 p. Die Epilepsie im Kindesalter, von Heinrich Vogt, Berlin, 1910, 225 p. Transactions of the Nat. Assoc. for the Study of Epilepsy and the Care and Treatment of Epileptics. First Annual Meeting at Washington. Buffalo, 1901, 221 p. E. Jones, Mental Characteristics of Chronic Epilepsy. Md. Med. J., July, 1910. Epilepsie bei Geschwistern, von Dr. Volland. Zeits. f. jugend. Schwachsinn, 1908, vol. ii, No. 4, p. 298–326.

[2] Zeitschrift für Krüppelfürsorge, which began July, 1908; edited by K. Biesalski.

100,000 crippled juveniles under twenty, one for every 1,500 of the youthful population. Half of these need homes, of which there are only 43. Care for this class of unfortunates has its medical, humanistic, sociological, and psychological sides. One estimate is that 52,000 of them might be distinctly aided by medical treatment, which at present only a very inadequate portion of them receive. Some 23 types of illness contribute to make children cripples. Thus with the above four lines of study and help, cripples become the most complex from many points of view of all the arrested classes. For this reason it is very emphatically urged that no uniformity of conception or treatment be developed, since each individual is here in the most unique sense a class by itself. It is now urged that all the members of the German Teachers' Association (some 100,000 who, with those not members, care for nearly 12,000,000 pupils) should be interested in studying and aiding in the care of cripples in the school. At least those whose defect is expressed chiefly in characteristic attitudes might thus be much helped. It is also urged that all who help this class of children, school doctors, neurologists, teachers, surgeons, etc., are really members of an orchestra, of which the individual child must be the leader and its needs compose the music and assign each player his part. Very wide is the range of individual adaptation to the many home and other industries and occupations which those who care for this class must command and use. This is a field where orthopedics and even orthophony should have ample opportunity, and all the complex apparatus of the former should be at hand. Only a small portion (one author estimates but three per cent of cripples as they are now defined in Germany) is really mentally insane, although nearly 11,000 are tuberculous and another 11,000 rickety and from 3,000 to 4,000 epileptic. The amazing development of orthopedic surgery has probably done more for this class of children than for any other. The French include here those who are mutilated[1] (*estropies*). A German journal[2] includes them in its largely medical and anatomical pages.

Children who cannot play like or with others, when childhood is normally so largely made up of play, who are deformed, misshapen, and perhaps ugly, when children are usually so attractive, children especially who are incurable, if at the same time despite this they are sweet and bright, so that their beauty of soul is contrasted by the defects of their body, touch the natural springs of pathos in the human heart as do perhaps no other class. It is, however, a trifle saddening that the American public, and especially private homes and schools for cripples, in their reports and all their public references appeal so exclusively to pity as a motive of charity, with their many photographs of pathetic little creatures on crutches, in bandages, casts, etc. How they wring the heart, is seen by the very lists which they print of petty donations, toys, candies, etc., often a very long one. Not one even fairly good study can I find of the psychology of any type of cripple, although every bright hunchback or boy with twisted feet or in wheel chairs fights a daily battle with himself and with the world that is of unique interest to science and that would teach us far more than we now know of how he looks at things and would reveal the mainspring of his likes, dislikes, and activities. Some of these unfortunates are rendered sour and vicious, misanthropic, hating the world for its largely imaginary contumely and slights, fancying aversion or ridicule where none exists. Others are broken-hearted or grow careless and indifferent. Some are made supremely selfish and acquire a veritable passion for being served, while the best seek to atone by cultivating a sense of duty and rendering services to others to compensate for all that has been done for them. Romance has sometimes touched this field, which so needs scientific explanation. Not only slight deformities, like those of the foot, but often even less marked peculiarities sometimes seem to brand the soul and give a cast to disposition or determine vocation, cause morbid blushing and seclusion or otherwise color the entire life. Do not, then, institutions need a trained and scientific psychologist as a physician to the soul, to learn and reveal all these things, and would not his achievements rival those of orthopedics and surgery? One study now under way in this new field shows its richness, but all these treasures very strongly tend to be concealed by exquisite sensitiveness and reticence, while the cruelty of normal young children toward cripples would be criminal were it not ignorant and uninformed by proper insight, even on the part of parents and teachers, who tell cripples not to mind it at all and who think because they are silent that they have followed this counsel. To-day most who work for this class may be said to lack the one thing needful to give every dollar and effort its proper value. To forbear, forego, renounce, is peculiarly hard for children, even in institutions

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[1] L'Enfance Anormale, which began in 1906, and was continued as the Bulletin Trimestriel de la Sociéte Protectrice de l'Enfant anormale.

[2] Zeitschrift für die Erforschung und Behandlung des jugendlichen Schwachsinns auf wissenschaftlicher Grundlage, which began in 1907; edited by Vogt and Weygandt. Zeitschrift für Kinderforschung mit besonderer Berücksichtigung der pädagogischen Pathologie, which began in 1895, gives space to cripples and is also distinguished for its humanistic and psychogenetic work, as may be seen from the wide range of its articles, which embrace art education, children's drawings, aphasia, proceedings of child study societies, phenomenally precocious children like Heineken who was born in 1721, and died in 1725, who wrote German and Latin before two years of age, and also Otto Pöhler, now a good average boy just entering the uni-

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versity, nervous children and the special care they need, suicide of pupils, the average age of unmarried mothers, special studies of individual children, e. g., a group of girls who lied phenomenally, advocacy of ear-boxing for lies, the opinions of children about school work, etc. The Place of the Crippled Child in the Public-school System, by Evelyn M. Goldsmith. Hygiene and Physical Ed., May, vol. 1, 1909, pp. 252–254.

where some *esprit du corps* may help, and it is pathetic to see how these forlorn little waifs learn almost every kind of self-sacrifice so early in life and how meager the joy of life which can save them from pessimism and despair.

Shut-in Societies give more attention to adults than to children, because there are relatively very few shut-ins among children outside institutions because they seldom live long when unable to get outdoors. Most of the children these societies care for are victims of infantile paralysis which results in defective intelligence. Its work consists in visiting, sending post cards, letters, reading matter, games, chairs, etc. More stress is laid upon home than upon institution cases.

The Hull (England) Guild of the Brave Poor Things was inspired in 1898 by Ewing's " Story of a Short Life." It was of a boy who wished to be a soldier but was permanently maimed and grew disheartened till at last he saw that he could turn all his courage upon bearing pain and doing good works of service. The Guild is for all those who suffer and would hearten each other to fight a good fight, to live and be happy and be good, despite any and every physical handicap.

Before the use of antitoxin, *diphtheria* was a very dangerous disease. Since the discovery of the Klebs-Loeffler bacillus we have a new dispensation here. Many children not sick are carriers; others have the disease in such mild forms that it is unsuspected. Schools used to be closed and children returned later with no examination and sulphur disinfection was relied upon, which is now classified with mediæval modes of exorcism. Now suspected children are tested and sterilizing serum applied and if cultures remain suspicious, further treatment is indicated. No matter how prevalent the disease, schools should not be closed, for this is a confession of impotence and defeat, says W. H. Burnham. No child excluded for the disease should be allowed to return without investigation. So *measles*, one of the most fatal diseases of childhood, which plays most havoc with school attendance, has been mitigated, for it is far less dangerous when postponed to later years of life. Certain nervous disorders are contagious, such as hysterical convulsions or tremors, and in a few cases schools have been closed or children sent home. These methods, it was found, the children did not dread, for they were not in love with school, and so the disorders spread and would break out with renewed violence after a vacation. Eleven to fifteen seemed to be the contagious age, and the contagion was really due to imitation or auto-suggestion and the desire to get rid of school, although there was no conscious feigning. Now, instead of sending afflicted pupils home, they are put in a special class, their reason is appealed to, and this " fool class," or " shaker club," or " concordia," is made unpopular. This tremor hysteria is a psychic phenomenon, especially prone to attack anæmic nervous girls. The census mortality for measles in the United States is about 13,000; from scarlet fever, 6,000; whooping cough, 10,000; but these are now among the Woods Hutchinson preventable diseases to no small extent. In the years 1906 and 1907, 318 school rooms in Massachusetts, containing 12,122 children, were closed in 70 towns. Dr. Burnham concludes that with present precautions the danger of a child's contracting diphtheria in school now is about equal to that of his being attacked by a lion on the way.[1]

Organized effort for the stamping out of tuberculosis[2] is now common to nearly every civilized country of the world, and there is an International Congress which meets once in three years to compare methods and results of the work in various countries, to learn new facts, and to profit by mutual exchange of ideas. The last meeting (1908) was held at Washington, D. C. By invitation of the King of Italy its next meeting (1911) will be held at Rome. Germany took the lead in this warfare against the "great white plague," and has now over a hundred sanatoria, public and private, besides day camps and special vacation colonies for tuberculous children, who are excluded from the regular vacation colonies. There is a Bureau at Berlin where tests and examinations are made, and which serves as a center of information on all matters connected with tuberculosis. The Red Cross Society has taken up the work, and with its movable barracks accomplishes prompt and efficient work. Not only do the Red Cross sisters themselves engage in this work, but they give courses of instruction to women helpers who take part in this work, and run an employment bureau for the benefit of discharged patients, many of whom lose their places when, as is often the case, long absence from work is necessitated. The fee in the sanatoria was at first 3 marks a day, but the increased cost of living has rendered it necessary to raise this to 3½ marks. There are some free places, but the larger part of the expense is paid by the Workingmen's Insurance companies. This insurance is compulsory by imperial law for every workingman in Germany, and secures to him not only a weekly allowance in temporary illness, but an allowance for life in case he is permanently disabled by sickness or accident. For this insurance both employers and employees are obliged to contribute, the highest amount for the latter being six cents a week. Improvement in housing conditions is also being effected through this movement. England and Ireland also have many sanatoria, and are also prosecuting the campaign vigorously through sanitary service, model tenements, better and cheaper food, and decrease of alcoholism. A Royal Commission for Tuberculosis was appointed in 1901. In France the main effort has been in the direction of the prevention and treatment of tuberculosis in children. Other countries have made provision for the cure of children already infected. Dr. Grancher conceived the idea that in families where poverty and the home conditions made it almost certain that the children would become infected, that it was better to remove the children from danger while they were still healthy. In Paris, the Œuvre Grancher sends the children of tuberculous into country homes, where they are under the medical supervision of the village physician, although not tainted with the disease. They are visited by the supervisors and become attached to the country life, so that probably many of them will remain there and become farmers. Parents have so fully realized the benefits to the children and the danger to which they are exposed in remaining at home in a crowded tenement that there are more applications than the society can receive. Sweden, Norway, Denmark, and Belgium all have national associations for the prevention of tuberculosis, and the crusade is vigorously carried on not only in European countries, but in Japan, Australia, and New Zealand.

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[1] For a larger view of the topics of the last few sections, see the Admirable Medical Examination of Schools and Scholars, by various authors for many countries, edited by the leader of the Child Study Movement in England, T. N. Kelynack, M.D., Lond., 1910, 434 p., and for a Model School Report, see the London Rep. of Medical Officers (Education), for the year ending Dec., 1909, No. 1367, 96 p.

Über einige Fragen der antitoxischen Diphtheriebehandlung, von Dr. Felix v. Szontagh. Jahrb. f. Kinderheilkunde, 1908. Vol. 18, pp. 281–303.

Über die Bekämpfung der Diphtherie in den Schulen, von Dr. R. Schultz. Jahrb. f. Kinderheilkunde, 1909. Vol. 19, pp. 375–411.

[2] See Ireland's Crusade Against Tuberculosis, being a series of lectures delivered at the Tuberculosis Exhibition, 1907. Edited by the Countess of Aberdeen, Dublin, 1908, 2 vols. The Campaign against Tuberculosis in the United States, by Philip P. Jacobs. Russell Sage Foundation, N. Y., 1908, 467 p. The prevention of Tuberculosis, by Arthur Newsholme, London, 1908, 429 p. The Great White Plague, by Edward O. Otis, New York, 1909, 321 p. The Conquest of Consumption, by Arthur Latham and Charles H. Garland, London, 1910, 185 p. Report of Fourth Annual Meeting of National Association for the Study and Prevention of Tuberculosis, Phil., 1908, 352 p. The influence of heredity on Disease, with Special Reference to Tuberculosis, Cancer and Diseases of the Nervous System. From Proc. of the Royal Soc. of Med., 1909, vol. 2, No. 3, London, 1909, 142 p.

Über kongenitale Tuberkulose, von Hans Rietschel. Jahrb. f. Kinderheilkunde, 1909. Vol. 20, pp. 62–81.

Since the tubercle bacillus was isolated by Koch in 1882 and the true nature of the disease was known, very much has been done in the collection of statistics and in prevention work. The registration area in the United States began with only two states and twenty cities and only within the last ten years have we been able to estimate even approximately the number of deaths due to the white plague. In the registration area, in 1907, 11.2 per cent of all deaths were from this cause, tuberculosis of the lungs being 9.7 per cent. Nearly a third of all the deaths between fifteen and twenty-nine are from some form of tuberculosis. In 1904, a national association of prevention was formed, and annual congresses held and all other countries invited to send delegates. There are exhibits and demonstrations by illustrated lectures, diagrams, distribution of literature. Previous to 1905, there were only 23 local associations. In January, 1908, there were 162. In the year ending June, 1908, alone, 113 special tuberculous dispensaries were established. There has been also an immense increase in the number of sanitaria and hospitals, most of which, however, do not take chronic or hopeless cases. An educational propaganda has been very vigorously pushed in which the stereopticon plays an important rôle. Eleven cities now have schools for tuberculous children (May, 1910). All the schools opened or proposed, however, provide for only $\frac{4}{10}$ of one per cent of the 273,000 children who need treatment and where they are a menace to others as well as living under bad hygienic conditions for themselves.

The various forms of tuberculosis between five and fifteen call for unique treatment. Some children, often called scrofulous, are not really tuberculous, while others are chiefly affected with bovine rather than the human type of the disease. Rowe thinks this may immunize against human tuberculosis. Dr. F. L. Wachenheim says the surgical type, which affects the bony structures, is usually orthopedic and not infectious. Tuberculosis of the lungs is rare till the approach of puberty. Until recent years the great influence of tuberculosis on infant mortality has been unrecognized because the clinical symptoms are not so clearly manifest as in later years, yet Beitzke of Berlin found evidence of tuberculosis in ten per cent of the cases of post mortem examination of children under one year, and larger percentage was found by Hamburger and Ghon in Vienna. Miss Wollstein, in her investigation of 882 cases in New York, found a somewhat smaller proportion for the first year, but for the second year the percentages for New York and for Vienna are nearly the same, being forty per cent for the whole year in Vienna, and in New York thirty-four per cent for the first half and forty-four per cent for the second half. We now know that larger numbers of children between the ages of six and fourteen may be infected with tuberculosis without showing clinical symptoms. Until the method of tuberculin test devised by Professor von Pirquet,[1] of the Johns Hopkins Medical School, all tuberculin tests involved inconvenience and sometimes danger; tubercular tests of the eye have been proved to involve more or less danger, and the subcutaneous tests, while not dangerous, involve discomfort and sometimes cause illness. The Von Pirquet test consists in putting a drop of old tuberculin on the skin and then making a small superficial scarification. The next day there is an inflammatory reaction if the patient is tuberculous, and no reaction in healthy individuals. The severity of the infection is indicated by the extent of the reaction, and the prognosis depends upon the age of the child. In older children it is fatal only when the clinical symptoms are of a wide-spreading nature. In the first year of life nearly every infection ends in death. The necessity of protecting babies from all contact with those having tuberculosis of the lungs and from infected milk is obvious. The research of Behring and many others points to childhood as the period *par excellence* of infection, so that good habits of eating, general nutrition, fresh air, salubrity of climate, and travel to wholesome resorts for those who can afford it, are important. Many have thought that to remove enlarged tonsils and adenoids was preventive, but on the other hand, while diseased tissues may always be sources of infection, glands are germ filters. The tendency now is against the extreme practice of slaughtering all tuberculous cattle, for isolation and compulsory pasteurization seems to be sufficient. Till we can wipe out the slums and improve our tenements and cease killing off our children by barbarous labor laws, and remedy the strain of indoor sedentary school work, reduce promiscuous expectoration, make our segregation methods more effective, we shall accomplish little. Gland and bone cases do best at the seashore with sunshine. Pulmonary cases are best inland with considerable range in the location and climate. There should be no school work for those who have not been free from fever and gaining weight for weeks, and a long probationary period and plenty of future treatment is always necessary. A combined school and sanitarium is what is now wanted.

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[1] Prevention of Infant Mortality, Am. Acad. of Medicine Conference, 1909, pp. 25–31.

St. John's Guild (founded 1886) relieves sick children of all races and creeds of Greater New York by taking them to Sea Side, a 505-foot beach of fifteen acres. It has an admirably equipped floating hospital made out of an old coasting steamer, with baths, cribs, a milk booth, operating room, diet kitchen, isolation wards, etc., and now two supplementary boats. Nearly a million children have thus been given at least a vacation and a bath by this society, entirely without cost. It is now open only during the summer months and the hospital facilities are somewhat magnified. The bath property, steamers, and buildings are all for ailing children. This is certainly a noble work for the Trinity Church corporation to do. It is, of course, essentially alleviative rather than preventive. Sea air, water, and the beach have a perennial atavistic charm for children, and if there is any such thing as a joy cure it must be here experienced. Children and the shore belong together in hot weather.

In Germany one of the best recreation centers is that of the Red Cross near Berlin for old and young patients, and there are many others more or less on its plan. All the sheds, cottages, tents, and playgrounds are in or near an open pine forest. School desks and benches are out under the trees, which have blackboards nailed to them. There are boys' and girls' clubs, encampments, games, access to the water; all in all, the scheme is not unlike a smaller, secular, recuperative Chautauqua.[1]

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[1] *Beiträge zur Kinderforschung und Heilerziehung* is a series of monographs on child-study topics begun in 1898 by Ufer, Trüper, and Koch. There are to date nearly 80 monographs in the series on such topics as the child's morality, the

Special *hospitals for children* have been established in many places, that of Boston being forty years old in 1909. There are now perhaps a dozen good ones in this country and Germany has a number of excellent *Kinderheilstätte* and France has special service, homes, and courses. Some of these are free to those who cannot pay. Medical service is by departments. Contagious diseases are barred by most. Many have out-patient departments and sometimes outside service and a school for nurses, a summer resort, etc. The New England Hospital for Women and Children (1862) has an admirable course for nurses. There is also a State hospital school at Canton, Massachusetts, for deformed children. New York City has its nursery and children's hospital; Pittsburg, Columbus, and Milwaukee their children's free hospitals; the colored people, the Frederick Douglas Memorial in Philadelphia, and there are various religious and private dispensaries, institutions, and wards, some of them with social workers. Boston has a well-equipped floating hospital (since 1894), accommodating 130 permanent and 125 day patients in which, from the last of June to the middle of September, children are taken on daily trips down the harbor. It is the largest infant hospital in the country. England has its Victoria Hospital for sick children (since 1872) with a convalescent home at Swansea.

There are also baby hospitals, the Massachusetts Infant Asylum being established in 1872 to save the lives of babies whose parents could not properly care for them and who used to be sent to almshouses. It treats some 250 babies per annum and has a registry for women desiring to be wet-nurses. It holds that nearly all mothers can nurse their babies if they really try. It sustains a roof garden and a boarding home in the country. The New York Babies' Hospital, founded in 1888, claims to have saved the lives of 7,000 out of the 10,342 babies it has cared for in twenty years and has a summer branch at Oceanic, N. J., gives free treatment and dispensary service to those who need it and clinical lectures to medical students, and has trained some 400 nurses. It now offers them an eight-months' post-graduate course and has an excellent medical staff. The baby hospital at Newark and later that of Cleveland should be men-

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training of those in moral danger, the relation of feeling to the intellect in childhood, preparation for confirmation, language during the first sixteen months, chronic constipation and bed-wetting, observations on the development of individual children, degeneration of the child's imagination, the significance of toys, the impressionability to the environment, psychasthenic children, epidemics of hysteria in German schools, the later stages of youth, individual limitations of attention, the pronunciation of r, the relations of finger-counting to finger activity, the first instruction in speech for idiots, flogging, tic in childhood, the religious belief of children, the influence of venereal diseases on marriage, and their transmission, development of the *Gemüth* in the first year, precocious children, suggestion, lies and ear-boxing, child suicide, the food of Berlin school children, and sleep of children in the common schools.

tioned. Germany, too, has several *Säuglingsheilstätte, Fürsorgen, Heime,* etc.

Many children cannot play. Their flesh is pasty, their knees do not work, their eyes are large with purple rings, and their heads are disproportioned. Most of them are underfed, some overfed. We must, therefore, says S. E. Tracy, provide for occupational treatment for sick and convalescent children. Invalids need entertainment. "The best play is work and the best work is play," and both are curative. A good nurse takes the best care of a patient's thoughts. She knows the need of companionship and interests. This is stressed at the Adams Nervine, where nurses are trained to initiate and share the occupations of both children and adults. This will relieve the weariness of the long stage after the acute period of disease has passed and which is often so trying. In the case of one poor child, it was stipulated that no money should be spent and the nurse must make something interesting out of nothing. Indeed, the rich children care more for products of ingenuity than for the finished toys, and there seems no end to the possibilities here if the creative spirit which the love of childhood breeds is kept up.

Our 105 institutions for *juvenile delinquents,* with a population of 51,871, with property valued at $31,000,000 and spending $7,000,000 a year, are a great drain upon the State by whose bounty these essentially unproductive consumers exist. They did not evolve from the public school but from the prison, to separate the young from the hardened criminals, and they are not yet free from their prison origin. Hence the motto, "A home for every child and a child for every home," is not very applicable to delinquents. Not only society but even judges feel that when the child has been duly sentenced to the reform school their interest ends and they can wash their hands of the whole matter, says H. W. Charles, who adds, "the population in schools for delinquents is a measure of the failure of other agencies and not of the reform school," which is not first aid to the injured but the last resort. It is striking to see the great need of physical training in young delinquents. They have been so shiftless and are so underdeveloped that they have no conception of their own powers. It often comes as a revelation to them to know what their muscles can do. It may require immense effort to do a very simple gymnastic stunt at first but to have succeeded even in a slight one marks an epoch. Perhaps almost the chief trait of many of these cases is inability, if not aversion, to every form of effective effort. Probably every boy ought to have something to do every waking hour, and probably ought to pay in drudgery the price of better things. Industrious habits are the only sound basis of economic independence. These young derelicts lack all conception of property or the value of money because they have never earned it, and institutions that supply all the needs of their pupils gratuitously, and especially if they give luxuries, weaken the very fiber. Dr. Charles believes that there should be more austerity and perhaps merits and privileges earned by money values, bought by work, and George Junior Republic features might do good. These children are in revolt against the social order. These institutions have not kept pace with the modern playground movement and none would profit more. "A uniform system of child study in all these institutions" made by experts is needed.[1]

The Juvenile Protective Association, says C. T. Walker, seeks to stand in *loco parentis* with young people who are in danger. It prosecutes those who violate laws affecting child life and tries to remove conditions detrimental to their normality, provides recreation and seeks to be as nearly an ideal parent as can be. To this end it has to investigate sources of temptation, such as department stores with their unprotected tables covered with trinkets, pool rooms, gambling joints, cigarette dealers, shows, pawnbrokers, who are not prohibited from accepting articles that they practically know are stolen, as are junk dealers, both of whom are connected with perhaps the most prevalent form of juvenile misdemeanor. From picking up coal by the railroad tracks, children easily learn to throw it off, sometimes even from moving trains. The dignity of the work of the truant officer needs to be raised and their number greatly increased. In many places the truant has no warning till he comes to the court. Truancy usually begins with neglect and ends in delinquency and hence should be nipped in its bud. Probation officers, too, need better training. They can often create better understandings between parent and child, but often find that it is the former who is incorrigible; so that sometimes children are lost in trying to redeem irredeemable parents. For all dependent children the visitor needs special training and should keep complete record of the child's development while in its foster home. The training of children in all institutions for delinquents is also necessary, and juvenile judges who have to make these very subtle moral diagnoses also need training. Policemen especially have immense influence upon certain grades of childhood which they can save from being delinquent if they will. What is needed is a socialized policeman who will realize that many a boy makes a slip, but that being caught by a policeman may mean moral regeneration and not inevitably a place on the docket and a sentence to an asylum, almshouse, or prison. The chronological age of sixteen is thought to be of great importance.[2]

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[1] The Young Malefactor, by Thomas Travis. With an Introduction by Hon. Ben B. Lindsey, N. Y., 1908, 243 p. See Annual Report of the New York State Probation Commission since 1907.

Zur Kenntniss der Psyche des jugendlichen Verbrechers, von Helene F. Stelzner. Zeitschr. f. Jugendwohlfahrt, Sept., 1910, pp. 524–530.

[2] The English Children's Protective League (1900) seeks to utilize existing and promote further legislation toward rescuing children from dangers and criminal surroundings, to enforce the act forbidding them to enter public-house bars, to advance scientific teaching in the schools on the properties of alcohol. It pub-

Probation in some form has spread throughout this country almost like a contagion, and some think it is a panacea for almost all the evils of neglected and wayward children, says Homer Folks. It is not a system of having children call weekly on a judge or an officer, but there are many comfortable homes where there is something wrong which needs treatment somewhere between a lecture from the judge and the deprivation of liberty. Probation is cheap compared to the expense of supporting a child in a reformatory. It treats the family, too, as well as the child. It is cowardly to shut up the boy or girl to protect ourselves. The juvenile court is, like Boston, a state of mind, a place for the study of all the problems of child life. Probation teaches self-control and self-direction because the boy is left to manage himself. Institutions overstimulate and it is hard for boy life to adjust to military monotony, which does not produce stable boys who can stand the strain of life, who have judgment, and it lacks the personal element that probation supplies. No two boys are alike and there can be no more individual variation, and no sharp break between probationary oversight and subsequent life. Of course probation cannot make a bad home or boy into a good one. It is only organized study and kindness. Severity of punishment does not deter feeble minds. The lack of this system is that there is no systematic administrative control such as institutions have. It is sometimes improperly used and is not a panacea for all children or all faults. It eases the judge who wants to yield to pressure in a special case or for political influence. Too many children are under one officer to permit of vital relations. There is often enthusiasm with little real work. The term is almost always too short. It should be at least a year and is often thirty days or even ten days. Perhaps too much is claimed for it when one report says 90 per cent of the cases are saved by it. It needs more technique, accuracy, and precision.[1]

The *Big Brother movement* originated in the Men's Club of a New York church in 1904, when Mr. E. K. Coulter showed to the club that the majority of boys put on probation were left for the

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lishes leaflets, has a department in the Health Magazine, holds annual meetings, etc.

[1] The suburban child, says Mrs. S. M. Lindsay, is a highly selected class, the offspring of usually young, intelligent parents of public spirit who want attractive homes, roads, churches, public service, are progressive, and have a cultural air. In a sense, some of the children are the flower of our American life, but they are impatient of restraint and prone to break out in new ways. The father is usually away all day, so the suburban child is fatherless. He often goes early and comes late and the residence section is manless, and children have extraordinary freedom, for even the restraint of men passers-by would help. The police, too, are rarely needed and are very far between. Teachers find that the problem of discipline in these children is very hard and they are full of prankish mischief. The children play in groups and their diseases are infectious and spread rapidly. They are up to many kinds of mischief. There should be reform here by rousing a determined

most part with no one to look after or encourage them, probation meaning simply to report at stated periods. The object sought is "to give delinquent boys a chance, to help them to become happy, normal, self-supporting, and self-respecting citizens." Forty men agreed to take one boy each and be a big brother to him. If he needed a job, to find it; if he was sick, to see that he had care; if the home was wrong, to make it better; if school was hated, to find why and interest him; if his play instincts had got him into trouble, to help him out. In five years the number of big brothers increased from 40 to 700, some having more than one boy in charge, so that there were 1,312 little brothers. There are but two regular paid workers, the secretary and his assistant, although a careful investigator has been employed by outside friends. Each boy costs on the average $4 a year. Ninety-seven per cent of these boys, all court cases, are considered successful—that is, the boy's first offense has been his last up-to-date. There are various auxiliary agencies. The movement has already spread to Philadelphia, Pittsburg, Chicago, San Francisco, while Europe is looking on with interest.

The New York *Society for the Suppression of Vice* was created and now for nearly forty years has been conducted by Anthony Comstock, a very vigorous personality and an enthusiast in his cause. When this work began, there was no adequate law by which the young could be protected from the corrupting influence of this moral infection. A way was found through the postal laws, so that now

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public spirit, great care in the choice of teachers, clergymen, physicians, a firm but friendly children's patrol on the street to prevent rough house, careful supervision of corner lounging, coasting, plenty of incitement for children to share in all public interests; fathers should be rescued for the home, social forces put to work, and the suburb made a radiating center of many kinds of reform.

Those who attempt any 1915 movement of making a good city better will "soon find that improvement in conditions of home life is at the beginning of all progress," says J. L. Sewall, of the well-known Boston movement. Of the 13 different groups of organizations which this represents, there are only 4 that do not bear upon child welfare. This association, however, did organize the boys' games of the summer of 1909, with 17,000 participants, which has grown ever since and has brought about the movement for a saner Fourth under the lead of Dr. D. J. Scannell, who organized a group of volunteer physicians to address all kinds of associations of parents on the need of reform of our past barbaric methods, which the new Boston will soon know no more. There is not one of these improvements contemplated but will benefit child life.

In 1909, E. G. Foster organized a unique survey of boyhood in Detroit. The work was divided into the following departments, each conducted by an expert, often brought from a distance: amusements, boarding houses, church and Sunday-school, deficiency, delinquency, gambling, home, obscene literature, playgrounds, prevention, public library, saloons, school, the social evil, special schools, street trades, and gangs. The work was pushed very vigorously and the reports are succinct, and each department concludes with practical recommendations. (See Association Boys, October, 1909.)

all advertisements and dealers can be stopped and registered letters and money orders going to foreign dealers refused. The special work of the society is to secure legal operations necessary for conviction. Anthony Comstock is a man of little education in the technical sense of the word, but fired with one great enthusiasm, and he has accomplished a marvelous work during the last nearly forty years in behalf of the children, that their "chamber of imagery" may be kept pure. In that time he has destroyed 140 tons of vile books (over 300,000 at one seizure) and pictures (69,000 at once). He tells how the vilest scoundrel can send alluring letters to names of youths found in our school catalogues, and his life is largely made up of adventures of a very thrilling character in the crusade which makes him one of the chief knights at the modern round table. He describes at great length the devices, trickeries, evasions, and the persistence of villains who would corrupt youth for their own emolument in ways that are absolutely incredible. He has destroyed the plates of 167 books printed in this country, broken up obscene circulating libraries, been ordered out of the court room by venal judges, traveled to all parts of the country, is summoned any hour of the day or night, has seen critical moments in legislation, has been villified and ridiculed by the press and by pamphlets on his "Life and Crimes," and infernal machines have been sent him, he has been shot at and wounded, kicked, stabbed, and poisoned, but has done a magnificent work for children.[1]

Mrs. J. D. Hodder, who has had long experience in the Social Service Department of the Massachusetts General Hospital, with *unmarried pregnant girls,* would, first, if there is any affection and the man is decent, force marriage; if not, would demand and collect monthly support for the child. If the girl does not marry, she is urged to keep her child and be a faithful and true mother to it, doing her complete duty toward it in sickness or in health. Mother love is a mighty power and will come to her aid and sustain and comfort her and make her forget and enable her to outlive the social brand. Very often the girl's mother, if rightly approached, after the first shock will receive her daughter back and support her through it all. Usually the girl has not confided in her mother. Generally her community knows of or surmises something of the circumstances. She generally has justification in her own heart or else bitter condemnation of herself. It must be horrible to feel that one's own baby is somewhere in the great world but unrecognizable. The child, too, who does not know even his own mother and who came into the world unasked, is handicapped for life. Some girls who thus face the world find their baby is all their soul has hungered for and live in and for it and purify the ideals of motherhood. Moreover, the man, who only pays, has some interest in the child and is enlarged by it. Shirkers who run are most of all dangerous to the next girl and for her sake they should be followed up. What is there more degrading and unmanly, fitter to bar from all decent society, than for a man to sneak from the support of his own child? The conventional way of having the child secretly brought up or adopted or otherwise disposed of is demeaning to the mother and father and calamitous to the child, to whom adults owe the very greatest of all duties and services in this world. If society, which should be an over-parent of all children, did not interfere, mother love could be left to do its work. The most common in this class are immigrant girls who are peculiarly exposed. They are often told that all women in this country are bad. Very commonly a trade they bring with them is all that saves them from a life of promiscuity.[1]

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[1] See The Work of the New York Society for the Prevention of Vice, in Proceedings of the Child Conference, Clark University, 1909, pp. 91 *et seq.*

In aiding girls who have gone wrong, one important part of the work of the home where the experience of motherhood comes to a girl is to find work for her afterwards where she can support herself and her child. "Of late years," says Dr. Smith, "the necessity and value of preventive work is being recognized and temporary homes for unprotected working girls are supported by some societies as a part of their work, and their agents visit railway stations, boat landings, and doubtful places of amusement to get in touch with unprotected girls before they go astray." This class of women have never had wiser or more sympathetic treatment than that given them by the Sisters of the Divine Compassion of the Good Shepherd, who are cloistered nuns devoting their lives to this class of girls, without distinction of race or creed. While the work of the Protestant agencies is usually limited to young girls who have fallen for the first time, the Catholics accept all who come, up to the limits of their housing capacity. There are three distinct classes: those for prevention, which take girls from dangerous surroundings and give them ordinary training in school branches and industry; second, delinquents committed by the court or by parents, some of whom remain voluntarily after their time has expired, and a few of whom enter the Order of Magdalens and devote their lives to the work, although they can never become sisters of the order. In most Catholic institutions, infants are placed in homes or adopted and the young mother starts afresh without the child, whom it is generally not thought advisable she should keep.[1]

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[1] Chicago has inaugurated five "Eleanor Club" homes for young working girls, with parlors for company and tea parties, reading rooms, and tennis courts, while some of them have attractive verandas and proximity to boating, parks, baths, etc., all at from $3 to $4.50 per week, and with laundry facilities at five cents an hour and classes, if wanted, in the winter. There are also downtown rest rooms and a summer camp. This is one of the most beneficent new departures, but the need of increasing their number and extending them to all cities where this class of girls is found is very urgent and vitally touches the moral question. Japan has a "sympathy house" for factory girls who come from the country. They are ignorant and so facilities are provided by which they can take the regular school course evenings, from which some of them graduate. There are a few homes for working boys from fourteen up with very meager salaries, of which they pay perhaps sixty per cent. Here they can be held to a certain regularity by a judicious matron.

During long prehistoric ages girls, as soon as they reached puberty, had become wives and perhaps mothers. This involved arrest of individuation. Nature has thus come to impel girls to make a quick race, and so in many respects they surpass boys before the teens, so that to-day they have more of a physical and mental development before and less after this critical period than is the case with boys. The girl's occupations in primitive days were monotonous, less varied than man's, but no less arduous, but her development was adequate to the demands of this early social stage. Now, however, her domain has undergone sudden and very great expansion and almost everything is open to her; but her very constitution and instincts are conservative, and both men and customs are conservative in their attitude toward her. Hence, it is no wonder that she exhibits almost every psychic and physical trait of arrest and rarely outgrows the stage of adolescence with its instability and affectivity. She responds in feeling to all high ideals, but lacks will power to carry out her multifarious impulses. If she is sentimental, romantic, and unpractical it is because she has not adjusted to her new work. Miss B. Kennard finds that most girls do not play after about twelve, or even earlier, unless specially incited thereto. Boys are told to be good and kind, to favor their girl playmates, and this leads both sexes to feel that she is weak and he is strong. She now needs to build a new story to her life and grow a decade or two more, to realize her possibilities and to evolve her soul to fit its larger mansions. These repressions are products of many factors, beginning with dress. What would a boy be if brought up in her garb with all the proprieties it inculcates? She should not be weak or called so, for this interferes not only with her freedom, but even her safety. Conventionality, too, is a great represser. Many games that she would be better for have been tabooed for her until the playground is now opening some of them to her. It is a law that those who mature too early are childish in their maturity, and the modern woman is an illustration of this law. Nature forces her on in early years and society represses her later. If she is fickle and inconstant, interested in man's activities rather than in her own because they are more varied and intense, if her moral code is ideal but her lapses from it too frequent, if she is prone to lose her serenity and often fails to develop a soul of her own, but has a plexus of emotional responses in its place, if her environment overstimulates her, if her nervous excitability makes it hard for her to reason coolly, if she goes to pieces under a strain she ought to bear, if she is gushy or romantic, if her energies are often perverted, it is because they have been dammed up, because she is unripe, set in the mold before she is finished, because she has lacked many needed forms of self-expression, beginning with play, which is perhaps its purest form. Today it is not enough to be a cow or a beast of burden, but a woman must grow into the fullness and flower of her womanhood, and this superwoman is what the world now waits and longs for. It is not opportunity she lacks or that holds her back, nor incentive, but development toward a higher self-expression to fill the sphere now open to and inviting her. The old leading strings are nearly all and suddenly broken, and she must learn to fight her own way to more completeness than her sex has yet attained. The old conventions are gone, but the inhibitions which they so firmly established linger in her constitution. The call to her now is to enter a higher stage. If she suffers from *ennui* and inertness, it is because the efferent elements of expression have not been developed, or rather have not been checked from the time when at eleven or twelve her motor life began to be restrained. If she is dreamy, it is because her life is not active enough and she has not developed the chivalry in her own nature to heroic dimensions and because she is not thought capable of team play. She has accepted man's idea of her nature supinely, and so has neglected to cultivate the lines of life in which she, too, can be masterful and even domineering. If she has been untruthful, it is because she has not frankly accepted herself and all her functions with the highest respect. Some anthropologists tell us that civilized man shows signs of having reached or of nearing the maximum of his development, although there are many reasons to doubt this; but woman to-day is more probably but the promise and potency of what she is to be. In a word, again, she lingers in a mid-adolescent stage and has very many of its traits, and has not yet attained her full psychic and moral stature. This arrest accounts for much of her nervous perturbation, unrest, excitability, disease, morbid fancies concerning her health. These are symptoms of maturity artificially induced, and would vanish with full development.

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[1] Those who wish a very plain and comprehensive work can consult Ivan Bloch. The Sexual Life of Our Time and Its Relation to Modern Civilization. London, 1908, 790 p. Also Education with Reference to Sex, by Charles Richmond Henderson. Eighth Yearbook of the Nat. Soc. for the Scientific Study of Education. Chicago, 1909, 74 p. and 89 p. (in two parts). Das sexuelle Problem und seine moderne Krise, von E. Mertens. München, 1910, 476 p. From Youth into Manhood, by Winfield S. Hall. N. Y., 1910, 106 p. Sexualpädagogik in den Oberklassen höherer Lehranstalten, von P. Groebel. Hamburg, 1909, 88 p. Purity, Birth and Sexual Problems for Mothers, by Florence Evans. Boston, 1908, 120 p. La lettre à ma petite soeur, de Félix Ortt. Edition de la Nouvelle Bib. Ped. Ostende, 1909, 96 p. Purity and Truth; Letters of a Physician to His Daughters on the Great Black Plague, by F. A. Rupp. Philadelphia, 1910, 96 p. Love and Parentage, by William Platt, Lond., 1909, 131 p. Die sexuelle Aufklärung der Jugend, von Franz Walter, Donauwörth, 1908, 247 p. Das nächste Geschlecht, von Hans Wegener, Giessen, 1909, 190 p. Moderne Erziehung und geschlechtliche Sittlichkeit, von Friedrich Paulsen. Berlin, 1908, 95 p. Ueber die Voraussetzungen zur Möglichkeit einer sexuellen Moral, von F. Siebert. München, 1909, 54 p.

In a laboriously compiled essay crowned with a prize by the University of Zürich, Wild[1] collects a most painful anthology of the *mistreatments and cruelty to children* in the past and present; tells how the Roman father sometimes sold and could even slay his offspring with impunity; how infants have been butchered wholesale, even in the cradle, in times of war, and orphans, waifs, paupers, and the sick and unprotected have suffered; how children have been exposed, tortured, burned as witches or to compel confession, hung up by the limbs for a long time, worked to death, flogged, clubbed, and in some cases killed by angry pedagogues (one of whom left a record of having inflicted over 64,000 blows with the rod), together with many other forms of punishment. Some of these tortures to which children have been subjected in ancient times are too inhuman to report. Then follow many specific cases of cruelty from court records of children, whose parents or guardians broke bones, cut off eyelids, mutilated and mistreated in horrible, nameless ways, of children stolen by beggars and made cripples to excite pity as they begged, cut and blistered with blows, sexually outraged, hair pulled out, starved, enslaved under farming-out systems, killed at birth when illegitimate to conceal the parents' shame, left in filth, covered with vermin, tied and shut up in darkness, cold, and without food or clothes, made to eat insects, offal, and done to death in every conceivable way. From these horrible details the author classifies the causes of cruelty to children in the following order of importance: anger, hate, greed, alcoholism, Old Testament ideals, and psychic morbidity. Illegitimate children suffer most. Instead of this martyrdom the author would forbid all corporal punishment both in home and school. After giving a digest of laws upon the subject in a concise way and describing in a succinct, if somewhat imperfect, way child-saving and protecting organizations and institutions in Germany, Austria, Italy, the United States, and Switzerland, he presents a programme for the future designed to safeguard every child from cruelty, neglect, or exploitation, which shall encourage and not supplant private initiative. Patrons, inspectors, and guardians should not only enforce the law but encourage all existing institutions and favor the organization of new institutions. All this work should be organically connected with that of public education. Court sentences for cruelty should be heavier and family relations should be everywhere approximated in the public care of children. Norms are given for the families into which such children are intrusted. Childless parents and orphans seem providentially provided for each other. The juvenile court is the chief contribution of the United States to this subject.

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[1] Die körperliche Misshandlung von Kindern durch Personen welchen die Fürsorgepflicht für dieselben obliegt. Von Pfarrer A. Wild. Rascher & Co. Zürich, 1907, p. 162.

Anticruelty to children societies began in this country about 1875 and soon spread throughout the civilized world. Many of these societies confine their activity mainly to prosecution, leaving the judge to determine custody. Michigan has (since 1871) a State public school at Coldwater and provides that all sectarian and private institutions shall become incorporated and be inspected. Its last report states that "this is a splendid place to study human nature." So it is, but it has not and never has had any expert to do it. The New York Humane Society (1885) combines in a curious way help for animals and children, caring for 22,000 of both together (we are not told how many of each) in 1909. It provides ambulances and hospitals for horses, dogs, and cats, advocates horse vacations, houses of rest, and care for abandoned horses. New York is one of the 13 States which now require regular school instruction in kindness. The Boston society cared for some 5,000 cases of child neglect or crimes against children in 1909. It enforces nonsupport laws, but has strangely enough ceased to care for girls over fourteen, of whom it is glad to be relieved. It coördinates its work with other organizations and with the State board of charity, prints a picture of a score or two of iron instruments of torture actually used upon children. Most of the largest American societies also print photographs of pitiful cases "before and after," e. g., a boy with 100 welts, and infants apparently gasping out their last breath. This kind of appeal the German societies, under Marie Sprengel, criticise and eschew, printing only pictures of benefited children and positive activities. The great London National Society in 1908 dealt with 50,000 cases involving 144,000 children, of which some 40,000 were found to be insured, this being thought to be a frequent incentive to neglect, the insurance on these children's lives being 2½ times the total annual income of the society.[1] It deals very frankly with illegitimacy, of which R. G. Parr (The Baby Farmer, 1909) found 33,390 cases in 1906, or 8.1 per 1,000 births. Institutional life is very prone to be fatal to babies. The mortality of illegitimate children up to the third month of life is 170 per cent in excess of those who are legitimate. Parr followed up 160 advertisements of would-be baby farmers, charging all the way from £12 to £390 premium. Even this premium does not protect infants. Continental countries prescribe sanitary and moral standards, to which all foster parents must conform, and punish concealments of birth, etc. In 1908, Herbert Samuel succeeded in getting through Parliament an excellent law embodying and supplementing all previous acts concerning the mistreatment of children. This act even made overlaying, which is now often safeguarded by baby attachments to the parents' bed, an offense because it was so often caused by drunkenness. It also dealt vigorously with bastardy. Excessive punishment inflicted in rage upon children too young to know the moral quality of their acts is construed as an assault. American societies often deal with children who beg and peddle, especially late at night, with theatrical and other public exhibitions of young children. We might almost hope that barbarities to and tortures of children by their parents were always due to drink, but even this, to say nothing of neglect, is not the case. Many children are not wanted. They are enslaved, are victims of brutal passion. Sometimes they themselves are ugly, unlovable in form and disposition, and inherit all degrees of viciousness. Moreover, poverty sets the very nerves on edge, and anger is the most common cause of active abuse.

What a field is open here for psychopathic and psychogenetic study and how little we know! Are cruelty and neglect most common in large or small families? Among premature or post-mature parents? What are the factors of nationality, race, religion, city, and country? How far is the fault chiefly the child's? What is the psychological and ethical difference between abuse and neglect? What is the effect of the physiological age of the child and of the first prepubertal stirrings, the runaway age, etc.? How shall we judge when a burly father pleads in court that his mite of a child was insubordinate and that its will cannot be broken? Why and how is it possible for normal parental love to turn to hate, spite, and positive malevolence? Are troubles between parents and children more common in this country or among Anglo-Saxons than elsewhere, as the multiplicity of these agencies would suggest, and if so, why? Is it because children are so early emancipated under free institutions? How does the North, with its rigorous climate that makes indoor life necessary so much of the year, compare with Southern climes? Perversions and inversions in other psychic fields have their elaborate medical pathology, but not this. Do abused children when they are mature tend to abuse their own children, or does this sad experience lead them to be more tender? What are the permanent physical and psychic effects on later life of hunger, cold, emaciation, and bad treatment in infancy? Or is Nature so benign that she heals most of these somatic and psychic traumata without a trace, as many of the before and after pictures indicate? I do not find that one of these or many other crime problems, the solution of which should make all efforts wiser and more preventive, has been seriously investigated by the anticruelty people. This rich field cries out for the harvester, but so far cries in vain, although there are scores of young graduate experts who, for support and a pittance, would be glad to give a few of their very best years to this work, spurred by both philanthropy and the enthusiasm of prospecting in new fields of science. Long range views appear little save in reports and addresses, but practice is still myopic and fixed upon immediate relief and punishment here is more often tempered with vengeance than with mercy.

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[1] This charge however, does not seem well substantiated, see p. 183.

Humane societies seek to prevent and suppress cruelty to children and to animals, often with chief stress on the latter. Although the national association was incorporated only in 1903, its history began in 1866 when Henry Bergh organized the first society in New York to protect animals. An English society antedated this by forty-four years, having passed an anticruelty act in 1822. There have been 500 anticruelty societies in the United States, but many have been shortlived and there are now only about 330, which during 1908 cared for 762,944 animals and 166,264 children at a total expense of nearly $1,000,000 and with property valued at over $7,000,000. There were 32,000 prosecutions and 22,000 convictions. The scope of these societies' work has widened and they are now in touch with most of the leading child-welfare associations that provide shelter and ambulance, drinking fountains, veterinary lectures, have traveling agents, advocate horse vacations and try to raise the standard of humanity. The failures of these societies have been due to oversentimentality and spasmodic conflicts. They have issued very much literature and seek to be a clearing house for humane intelligence, with annual conferences. They grapple with evils on too large a scale for local societies to reach, such as transportation of live stock, treatment on ranches, preventing wild animals from extermination, slaughter of plumaged birds, etc. Some of them maintain temporary homes for children, but many of them are chiefly intent on enlisting the sympathies of children for animals.

Pity is an integral part of every normal soul, although children pass through a stage of heartlessness and even seem to love to torture, partly because they have had little experience in pain and so have not yet come to realize how it feels and partly because they are repeating an era of race development when the struggle for survival was against animals and rival tribes, against which wars of extermination were long waged. The essentials of a true and practical psychology and ethics of pity, which all interested in the above societies need to ponder, are, I believe, set forth in my "Pity" (With F. H. Saunders. Am. Jour. of Psy., July, 1900. Vol. ii, No. 4, pp. 534–591). Workers in this field should at least have a definite, consistent, and unitary view of the function of pain in the world. Unqualified opposition to vivisection, even when in the interests of science and medicine, to the rod under any and all circumstances, too much pathos over the suffering of animals, overtenderness that ignores the ministry of suffering in the world—these in their way are just as bad as some degree of heartlessness. Perhaps no class of agency is so intensely bent upon unreasoning and merely temporary escape from suffering or is so oblivious of the rich and deep philosophy which underlies all its work. There surely is a fanaticism of tenderness which will never commend itself to robust virile views of life.

Too much Athleticism is Cruelty.—Some 300 years B.C., Ladas, a Spartan, ran about three miles in the Greek stadium, won the race, and dropped dead. To be sure, his race was in soft sand, but he must have been in poor condition. Phidippides was sent from Athens to Sparta to summon help, 150 miles, which he covered in 48 hours. Saunders's record in 1882 for 100 miles is 17 hours and 36 minutes. Dixon ran 50 miles in 6 hours, 18 minutes. Rowell ran 100 miles in 13 hours and 26 minutes and 200 miles in 35 hours and 9 minutes. The present Marathon, 26 miles, 385 yards, is the most strenuous of all modern sports. Many think our physique is below that of the Greeks, but Xenophon (354 B.C.) complained that the Greeks specialized to the point of disproportion, that the runners' limbs were great but their shoulders poor. The art figures were not types but composites. The great athletes of Greece and Rome were said to be dull, stupid, to sleep away their lives. Probably Americans are superior as athletes to the Greeks. B.C. 490, a messenger ran from the battlefield of Marathon to Athens and announced the defeat of the Persians and dropped dead. In 1896, the first *modern* Olympiad, the first three men to finish were Greeks, and the cheer that greeted them rung round the world. Schrubb, Hayes, Longboat, Pietri, have struck out long-distance record breakers, no doubt superior to that of the ancient Greeks. Tait McKenzie's four masks represent the four conditions of these runners. One is the violent maximum effort, with repulsive expression; the second is breathlessness, with the head thrown back; the third is fatigue; and the last is exhaustion. After characterizing the points here epitomized, W. J.

Cromie[1] enters a very emphatic protest against all such efforts for immature boys. A Pittsburg newspaper conducted a ten-mile run, in which there were nearly 5,000 entries, all under sixteen. In another newspaper contest a boy of fourteen ran the whole Marathon distance. Colleges have found that 7 or 8 miles is the best distance for cross-country running, but competitors should always be trained and youngsters kept out. One mile of cross country is sufficient for boys under nineteen. They might run a Marathon relay, with 26 boys, but we Americans are extremists in everything.

Child Labor.—The National Child-Welfare Committee, says Owen B. Lovejoy, its secretary, aims to investigate, to improve conditions, to raise the standard of public opinion and parental responsibility, to protect children against premature or injurious employments, to enforce laws, to coördinate, unify, and supplement the work of State or local committees. The national organization is deliberately a committee and hopes not to be permanent. Where it has reached conclusions, it rises to report. While there are large fields for investigation, there are needs so obvious that action need not wait for perfect results. The volume of child employment has been for years increasing far beyond the increase of population. "In less than ten States was there anything like an adequate method of meeting the problem of child labor in anything like the effective and systematic way long in operation in Europe. The results of studies there were unknown in this country in 1904 when the national movement was organized. Thus, a militant campaign seemed necessary."

The Pennsylvania Report showed accidents and fatalities to boys of sixteen and under in the coal breakers to be 300 per cent higher than above this age. In Indiana, the factory inspectors showed the risk of children under sixteen to be 250 per cent above that of others, while the Michigan Report covering several industries showed 450 per cent against the children. These were the best reports, but it would take many years to show the ratio of industrial hazards for the working child. Youth are less cautious than adults and almost every day some child is sacrificed or killed needlessly. Thus it seemed safe to assume that children under sixteen are an unsafe industrial risk in certain occupations. Again, there are no precise and accurate data to indicate just how injurious night labor is, or what diseases attack night-working children, or how much their life is thus shortened. This is all the more difficult because night shifts alternate with day work. It may be assumed that children from ten to fourteen cannot work ten or twelve hours and still less by night, and that needlework and badly lighted, unventilated tenements make unhygienic conditions. Our Federal Government recommends a maximum of eight hours for men, as have many States for State contracts and even for convicts. This the trade unions recommend. A day long enough for adult men and women is not too short for children. Many object to six hours in the schoolroom, but at worst, this is only 1,000 hours a year, whereas, in Massachusetts, the factory child is confined 3,120 hours a year and in New York, where the eight-hour day prevails, it is 2,496 hours a year. The night messenger service again is prone to be very demoralizing. In a New York industrial school of 378 inmates 59 had been night messengers and in Ohio, out of 1,236, 138 had been so. A New York bill, preventing anyone under twenty-one from entering this occupation between ten at night and five in the morning passed unanimously. Children under fourteen should be eliminated from competitive industry and the Child Labor Committee thinks entirely excluded from wage-earning industries. Even the half-time system introduced with much promise in England is being abandoned. Fourteen is not entirely arbitrary, for it represents the dawn of adolescence. Between fourteen and sixteen, the Committee holds that no child should be employed at night or for more than eight hours or in any dangerous occupation or without satisfactory evidence that it has reached the physical development normal to this age that should be attained. In some cities, boards of health examine those seeking employment certificates and in New York City a large percentage was found defective. Further study is needed here. Each child should be examined on entering school. The record on a card should follow the child with additional information as to vital statistics, and it should not be left to officials to suddenly find in a fourteen-year-old child some glaring defect which may be a handicap for life. Lovejoy reports the formation of an advisory board of physicians for the further development of these plans.

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[1] Proceedings of Child Conference, Clark University, 1909, p. 19. Heart Strain in Boys, by Clive Riviere. School Hygiene, March, 1910, vol. 1, No. 3, pp. 144–156.

Zwischen vierzehn und achtzehn, von Dr. Karl Wilker. Zeits. f. Kinderforschung, Aug., 1910, vol. 15, No. 11, pp. 331–336.

The Child Labor Organization must coöperate with many other agencies, e. g., that of industrial training, trade unions, the National Consumers' League, playground, tuberculosis, housing, Prison Commissioners, Juvenile Court, etc., and become the agent and representative of enlightened public interest. The chief aims of this Committee are represented in 41 State and affiliated local committees, in field agents to act as eye-witnesses of conditions in various glass, cotton, tobacco, farming, and other industries, in publishing an annual report and other pamphlets in and for better legislation. Since the organization of the Committee in 1905, 13 States have established inspection departments to enforce child-labor laws. Ten States have established an eight-hour day with no employment of children under sixteen in all or some industries; hours of labor for children under sixteen have been reduced in 13 States and 6 have passed child-labor laws for the first time. In 1904, the fourteen-year age limit applied to factories and stores in 12 States; in 1910, in 19, and the list of industries has been extended. In 1904, no State had a sixteen-year age limit in coal mines, but in 1910, 6 States fixed the limit at sixteen, 18 fixed it at fourteen, and 8 at twelve. In 1910, 24 States forbade employment during school hours and night work is now prohibited in 24 States under sixteen, in 7 States under fourteen, and in 2 under twelve. In the last five years, 7 States have passed their first compulsory education laws and the age limit has been increased in 6 other States. The establishment of a Federal Children's Bureau has been the chief work of this committee, although its activity should extend far beyond the work of this organization. It, however, greatly needs information which it is not equipped to obtain, especially as to the diseases and moral hazards involved in the different industries.[1]

Mr. Fish, chairman of the Massachusetts Board of Education, is not satisfied with some of the prohibitions of child labor now being multiplied so rapidly but holds that work is one of the most glorious and important things of life. He recalls how as a boy he begged his father for a stint and thinks all children should be encouraged to work from the very start, both for its discipline and for the joy of achieving. Digging in a sandpile is not so different from digging in a garden. The main point is whether the conditions under which children work are right. The present labor laws forbid a healthy boy in a family which needs his wage to pass water to a group of men during a vacation. Mr. Fish was in Damascus, Palestine, in the hot weather and found there a cool old factory for inlaid brass work, where children were allowed to work as young as they pleased. They all desired it and sometimes children not over four years of age earned a few pennies a day. Where the father, mother, and older brothers and sisters work, the child is impatient if it is not allowed to work itself. It is always a blessing if it is not excessive and is in a wholesome environment. People are resenting the interference of the public with their children's work. Idleness is a misfortune or a calamity. The factory and the school should be correlated. Nine hours in a factory for a child from ten to twelve is criminal, but it does not follow that four hours a day is not a blessing, and many would be far better if they could have this opportunity.

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[1] See the Annual Volumes of Proceedings of the National Child Labor Committee since 1904. See also Constance Smith's Report on the Employment of Children in the United Kingdom, 1909. Also Dr. M. Allen's Child Life and Labor, London, 1908, 184 p. Die Kinderarbeit und ihre Bekämpfung, von Julius Deutsch. Zurich, 1907, 247 p. The Labor Exchange in Relation to Boy and Girl Labor, by Frederic Keeling. Lond., 1910, 76 p. The Cry of the Children, by Mrs. John Van Vorst. N. Y., 1908, 246 p. Bericht über die gewerbliche Kinderarbeit in der Schweiz, von A. Wild. Basel, 1908, 135 p.

The best knowledge of colleges in America was not secured by the Bureau of Education but by the General Education Board, and the best criticism of medical schools was by the secretary of the Carnegie Foundation. So the foundation for the Children's Bureau was laid in 46 States by a popular movement in contrast with the tendency in Germany for the people to lie back and expect the government to lead. Our government is in the hands of people who are not usually educated above the fifth grade in school. Special interests are always suppressing facts that are necessary to wise action, but we must not forget, as Thomas Jefferson said, that the remedy for the evils of democracy is more democracy. Says A. J. McKelway: In 1907, $300,000 was given the Bureau of Labor to investigate the condition of working women and children. The arguments for a Children's Bureau are all in and it is indorsed by nearly every child-welfare organization in the country. We are disgracefully ignorant of many things about children, especially if we might save a million more American children in a decade, as there is now reason to think. The plan of the Bureau is on the principle of first aid to the injured, and it may be that the sociological side is too emphasized. But surely the needs of many children are so plain and elemental that common sense can recognize them. The people need simple bulletins, a bureau, a better census, more investigation, information about legislation and about foreign experiments. We can now learn all we need to know about the cattle tick or the boll weevil or the San José scale, but when it comes to children in this century of the child we are still pathetically ignorant.

Children's aid societies include various organizations, some of which have temporary homes and some only a central office. The institutional child, especially in the large orphanages, is thought to lack initiative and independence. It was Charles L. Brace who, in 1854, first insisted that a poor home was better than most institutions and who began to ship New York waifs to Western States in lots and with little plan for systematic supervision afterwards. Thus, there were naturally abuses and hardships, but, in 1883, the Children's Home Society was organized in Illinois by Van Arsdale who organized the State into districts, each with a superintendent and with local advisory boards. After much difficulty, a national society was organized which now includes 32 States and territories, each State society being incorporated under its own State law and the national federation being merely advisory, its meetings and publications serving as a clearing house of methods and ideas. Both the State and the national work are supplemented by many volunteer agencies and endowments. Most States have receiving homes for temporary care. Constant vigilance is needed to make placing-out successful, girls having been applied for with the intention of steering them into disreputable houses. In other places, with good intentions, there is utter lack of power of adaptation to children. Moreover, many children are not model inmates of homes. Children who do not fit one home may be great successes in another. If a child has had religious training, it has to be conserved, but we find here a great difficulty. Most Catholic homes have plenty of children of their own, whereas Protestant and free-thinking families are smallest and this religious difficulty of placing children of Catholic parents in non-Catholic homes is one reason why members of this church cling to the institutional ideal. It is essential that where children are transported to a great distance they should be transferred to the local society and there is incessant need of great tact and knowledge of human nature in supervision.

Many private institutions for *dependent children* bear the name of the founder, Douglas, Diets, Nickerson, Gwynne, Finch, Wartburg, and are memorials by the donor or some surviving relative; but among these there is an almost remarkable absence of conditions that can ever become burdensome, and the dead hand is kindly. Many are strictly denominational. A few are rich and elaborate, like the Catholic St. Joseph's Home in Philadelphia and the Hebrew Orphan Asylum in New York. Some are for special classes, as seamen's children; others for fraternal societies, Masons, Odd Fellows, etc. In many, everything is free; others are run on a cost basis and have almost nothing except the buildings and the grounds. Most are controlled by corporations, backed by a large membership and far larger subscription list. Most in the East are unfortunately urban, while those supported by the State and in the West are generally rural. A number of them are farm schools; Thompson's Island, e. g., with 157 acres, for orphans or half orphans, admitted from ten to fourteen, with half-time school, makes the very best use of this island situation, controlling all modes of approach, and with Boston always looming up in the distance with its possibilities and ideals, where the city is indeed a state of mind for the boys. These guardian institutions all extend sheltering arms to the friendless and homeless, although they differ as much in the wisdom with which they are controlled as they do in wealth. Most of the best have chapels, infirmaries, clinics, lavatories, dormitories, gymnasia, athletic fields, various clubs, teams, bands, attractive dining halls, recreation rooms, perhaps an emergency hospital, workshop, with memorial tablets and classes of a varying assortment of industries. A few strive to keep up alumni associations, so as to maintain touch with the older boys and girls. Both the latter, however, much as they owe to their Alma Mater, are prone to forget her when out in the world. Some are not proud of being known as former waifs. Only very few of those who become able feel disposed to repay the institution by contributions. Only a few of the biggest and most imposing do seem to be able to maintain the real loyalty of former inmates. It is very hard for young people to feel that they have more than the world owed them in being fed, clothed, and brought up. Many long for the day of their release into the great world. The industrial regimen of some is so severe that boys and girls feel that they have paid their way and closed up the account when they leave and perhaps even believe that the institution owes them. It is impossible for the very nature of youth to realize what it might have been but for such aid. An institution also is too impersonal to develop parental affection, and graduates sometimes actually shun each other in future life as if they would obliterate a stigma. Yet what the best of these do for their charges is on the whole an admirable preparation for success in life. The extreme views of, and the antagonism between, the institutionalists and the advocates of home placing, does not suggest that breadth of view needed for judicial balance in a complex, many-sided question like this. Proper study of the nature and needs of childhood would show great advantages in both and would make it clearly manifest that each should have its place. Thus the partisans each see only one side of the shield. Here, too, should be mentioned the singular, and in my observation unprecedented devotion of Catholic priests and especially the nuns who work for this class. The very fact that they have deliberately and finally abjured a family life for themselves in order to adopt a larger family and diffuse their affections, makes them almost ideal caretakers. We Protestants have nothing that compares in effectiveness with this institution.

Dependent children (not otherwise abnormal) constitute not only an administrative but to an extent far from adequately realized a psychological class by themselves. The best and latest consensus of opinion concerning their care was formulated by the Hastings Hart Committee and unanimously adopted at the Roosevelt Conference for their care, held in Washington in January, 1909, which was, in substance, that they should if possible be kept at home, if the home was tolerable, and that this should always be the first aim. If, however, this was not practicable, they should be placed in carefully selected and supervised families and regularly visited. Next to this, the cottage home, with not more than 25 in each home, was advised, and the old herding in orphanages and other large institutions should be, wherever possible, abandoned. So vigorously has the placing-out system been urged of late that many buildings erected for the care of such children have been emptied and sold, and sometimes antagonism against the construction of new or even temporary homes has been strong. The change of sentiment in this regard, except among Catholic institutions, has amounted in many places almost to a complete reversal. The *Delineator* attempted to head a Child Rescue Campaign, with reference to the 91,000 children in the 1,241 American orphanages, organized a National League, advised a children's advocate and a national home-finding society. The work has been going on for 25 years and there are now 45 coöperating agencies. In institutions children often rise, pray, retire, eat by bell and silently. On walks and to school they go in lines. The hair even of the girls is cut for economy. Girard College, with its wall fourteen feet high, was built on this plan. The largest institution of this kind, the New York Catholic Protectory, is trying to escape this routine. Coldwater, Michigan, in five years, placed out 351 children, one at a time, with agents to look after them, the children being selected according to the applicant. Families in the country often want to take girls in the teens, really for the sake of their work. The child should not be left to shift for itself, nor placed so far from the institution that frequent visiting cannot be effective. It should enter as a true member of the family and not as a servant. Indenture should occur only after trial, and adoption should be permitted only by good foster parents and for good children. For those with bad habits the wards of an institution can often do what a family cannot.

The loss involved in orphanhood, of course, depends upon the value of the home and parenthood, but is always pathetic. Homelessness is thus of very many degrees. The child not breast-fed is in a vital, physiological sense orphaned. Before the child can creep or take other exercise, it needs to be handled and passively manipulated for its health and development, although this is often forbidden in infant homes. Of course excessive coddling and fondling are now known to stimulate sex elements prematurely, but to be lifted, hugged, pulled about, and shaken up a little is essential for growth. So, too, if not suitably clothed, kept clean and fed, trained, and later educated, a child is in a sense homeless. If separated from either parent, if they are normal, for any cause, there is loss. Extreme poverty or vice and unhygienic surroundings may make the home the worst of all places for a child. Home is, in fact, partly a matter of climate and season. Too early emancipation of children lessens its value; so does immigration of parents to a new land and tongue. On the other hand, excessive or prolonged subordination to parents has its degrees, and even filial affection has dangers of a specific neurosis as the Freudians have shown. To remove a young child permanently from its home may involve loss of knowledge of its parents and perhaps brothers and sisters. The orphan is thus in danger of becoming a child without relatives, and severance of all these ties brings an isolation fraught with manifold and subtle dangers and is a heavy handicap in life. It may be asked whether the enormous multiplication of fraternities and brotherhoods, scores in numbers in most of our cities, may not have a psychic connection with the weakening ties of parenthood and blood. This isolation all who care for dependence should use every possible care to prevent. Even if parents have been legally deprived of guardianship, the child should not grow up with no knowledge of the whereabouts, nationality, social status, health, or disease of its relatives, for these are a part of his self-knowledge, and the family in most cases should know the child. We have underestimated the psychic and moral value of these ties. To be a foundling or a waif, thus solitary in the great world, involves a very serious trauma, and for such castaways to orient themselves as to their blood ties is often a thrilling theme of novel and drama. In this field we strike a deep, intricate, atavistic plexus. The primitive tribe is usually composed solely of relatives descended from one eponymic ancestry. Degrees of relationship are often kept and named to a greater extent than civilized custom sanctions or even language provides for. Ancestors are often worshiped and blood covenants simulate consanguinity where it is absent. Indeed, these personal relations are almost a *placenta* for the growing boy or girl and to sever him from them is almost like abortion. Civilized adults have never yet begun to conceive what all this means for the child. It would make a grown-up an outcast, a man without a country, if not an outlaw. Solidarity of families in the early stages of society is such that each member is responsible for all and is disgraced and may even bear the punishment for other's crimes. In this stage of well-compacted sodality, mutual aid, complete merging of the individual in the social group, the child lives, moves, and has its being. There is absolutely no substitute that approximates this relationship in its value to the young. Indeed, psychogenetically the very enthusiasm with which we now speak of homes is doubtless due to the momentum of this ancient mode of life. Education rarely rises higher than the home, which school ought to supplement, and if it is good, the best institution is a poor substitute for it and will be helpful according as it approximates it. Probably under no conditions should the child be taken away from home simply because the parents are poor.

Only good children should be placed out. I have personally known cases where bad ones have infected families, entire schools, and even communities with vicious practices which startled the entire town, and one case brought such public indignation that the very life of the author of all the mischief seemed for a time in danger. Some years ago, a young girl in a western county of Massachusetts, placed out from an institution, spread moral and later physical contagion to an almost incredible extent. Few lads or lasses reared in the purlieus of a city slum are not in some respects dangerous, and what is most to the point, they are so in ways that the head of an institution does not and cannot possibly know. Therefore, it would seem obvious that without very careful individual study, no waif should be placed where these dangers are possible. What does the head of a large institution usually know of the personal, private character of the boys and girls under his charge? Moreover, the records of children's aid societies, with their infrequent visitation, afford almost no information on this vital point. Again, all admit that the home must be good and suitable, but here again there are grave dangers. Every intelligent society would have some regard for the sex question and not place a child in a family where there was another of the opposite sex anywhere near the same age, and it is well known that grave circumspection must be exercised in placing maturing girls. Information concerning the status of the families, representing great variety of stations and vocations in life, which is available in the offices of placing-out societies, is exceedingly inadequate. We are told that of every 100 married couples in Massachusetts 18 are without babies, that there are 100,000 homes in the State without them, while in the country there are 2,000,000 childless homes. Thus there are plenty of vacancies, but some of the best people have little judgment in training children, or they are careless, allowing them to run wild, and read vicious books. Most applicants want cheap help and need watching to give the children intrusted to them adequate education. It may be that parents without children of their own lavish all their tide of affection and care upon a proxy child; it is certainly a great and happy idea to supply ready-made babies to those who cannot have them of their own. But the question has been raised, though not answered, whether the sudden and cheap supply of human plants from a large nursery will not tend to abate the motives for fecundity. Once more, where the dependent child is placed in a family with other natural children, other dangers, too subtle to be readily detected, but very grave, may arise. I have known a young orphan, placed in a family with another girl, to be tyrannized over and almost enslaved, subjected to endless and needless mortification which was concealed by intimidation from the parents. This subjection may be all the more cruel between boys. Sometimes, too, there is a violent and bitter jealousy on the part of the true child toward the newcomer, which is vastly greater than that which young children sometimes feel toward a new-born brother or sister. There ought, therefore, to be some investigation of other children. Again, aid societies must usually separate brother and sister; if there are three or five children in a family they can almost never be placed together. Suppose, e. g., there were five orphans. Would it be best to keep them together in an institution or separate them in a family? The policy adopted in one large city is for the latter alternative, "because children may tease or otherwise injure each other," and temporary separation is sometimes wholesome for husband and wife, and parents and children sometimes need respite from each other. We should not forget that there is probably as much difference between institutions as there is between homes and that a good institution is better than a bad home. Too little guarantee of good character and treatment of the foster parents is secured. Visitation is too infrequent.

Placing-out agencies should follow the career of the children who have been under their custody, for thus alone would they be able to judge of the real effects of their work. They should, of course, take all possible care to prevent injury or embarrassment to those who might like the dependence of their childhood concealed, but the responsible agency should know what station in life these children attain to and what kind of citizens they make. At present young people after attaining their majority often desire to break all connection with the fact that they have been under any kind of civil guardianship and take pains to escape every sort of supervision. Coöperation and a joint bureau of investigation and information of child-caring agencies would help to this, as to many other desirable ends, while the nationalization of these societies, seven or eight of which have already attained it, is not sufficient, but they need an organization of organizations. Of 63 societies appealed to for information, only 13 show any system of after care as an integral feature of their work.

Moreover, we should not forget that there ought to be several million more babies in this country than there are, with its two million childless homes. We have one square mile for every ten children to play on. The American ideal points to race suicide. In one New York apartment house investigated there were 60 families with only 5 children. On Fifth Avenue we read of 15 blocks with only 15 children. Apartment houses are usually built for those married but without children, and over them, one writer has said, might be written, "Abandon babies, all who enter here." It is now very and increasingly expensive to rear children. J. G. Brooks thinks in the upper middle classes, if they are given an academic and professional training, boys cost about $25,000 each.

In some childless homes there is a longing for children so intense that the heart of both parents opens to a substitute almost as if it were their own. These empty homes are usually in the old stratum of the population and the children supplied are quite often those of new arrivals here and perhaps from overgrown families with a shoal of children. This might make an ideal combination because sometimes those best for physical parenthood are worst for later cultural care, and conversely those best fit to train and educate it to maturity may be sterile by necessity or by voluntary renunciation of child-bearing for fear of transmitting some hereditary disease. Thus the idea of foster parenthood is rich in possibilities.[1]

At present we have no statistics which show whether orphans are taller or shorter, heavier or lighter, more or less healthy, or long lived, than others, and few data to determine the effects of the different causes of deparentization upon the child. Abandoned or illegitimate children were once thought to be rather better than the average because products of love, but it would now appear that they are on the whole somewhat inferior, although we cannot yet determine whether this is due to heredity or environment. When orphanhood is due to the death of one or both parents from disease, the latter may be inherited, at least as a predisposition, and so of vice, chronic sloth, idleness, lack of energy, and impaired vigor generally. Even poverty itself usually is the result of some disability to win a secure place in the industrial world. Separation of parents, too, may involve predisposition to some moral or social flaw of character. Accidents to the breadwinner may rob of their livelihood children best endowed by nature. Thus, again, we are following splendid instincts of humanity, but blindly, where we might have more light, and only by patient child study can our efforts be wisely directed.

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[1] Berlin has a voluntary education council (since 1896) for orphans. After they leave the school or institution each has a voluntary adviser or visitor who assists them in choosing a vocation, in obtaining a situation, and is a vicarious parent. There are besides in the last report 143 expert professional people organized into a committee, who can be freely consulted in emergencies. The advisers now number about 1,500 and more are needed of both sexes. Each has charge of from one to four orphans. The society publishes a monthly bulletin and various pamphlets, is well supported by the press, has public meetings and has a long list of some 4,000 patrons. Nevertheless, its budget is only some $600, with a capital of $20,000, but no more is needed as the real contribution is service.

T. J. Barnardo (1905), who did not know his own father and whose mother died in a workhouse hospital when he was five years old, sought to save in the east end of London children that belonged to nobody and who were not desired. During his life he was able to transport 16,000 such young people to Canada, and in the last thirty-eight years of his activity he educated nearly 56,000 of them at a total expense of about 75,000,000 crowns. As a result there are now in England many child castles, gardens, homes, sleeping rooms, playgrounds, hospitals, colonies, gymnasia, schools, villages, etc. The work of this remarkable man was epoch-making and he gave a great impulsion to this work in England which is now being copied in other countries.

Social workers for all defective classes in general and in this country in particular are prone to overestimate the influence of environment as compared with heredity. The latter is settled, so they can work only upon surroundings, and naturally tend to magnify their relative efficacy. Moreover, in a democratic land where there is an instinctive prejudice against caste and every advantage due to birth, where all are assumed to be born equal and no aristocracy of blood is readily admitted, the value of being well born is very prone to be underestimated. Children may curse their parents if they realize that they are handicapped by their errors or defects, but it is hard for a state founded on the abolition of all such privileges to do justice to the legitimate effects of good ancestry stock, and a sane paper on eugenics at a conference of charity workers for unfortunate children in one case, at least, brought mild consternation and was called disheartening. Children are docile and human nature is plastic, but education rarely molds the most fundamental qualities, so that it is less effective than even teachers are prone to think, and great as our successes often are, they are always within adamantine limits, for in the training of all congenital defectives we can at best only supply a more or less artificial substitute for what in those well-born Nature herself gives freely almost without any outside aid. Of course, too, the momentum of the old religious motive is strong, even in those whose consciousness has abjured all belief in personal immortality. They feel that a life itself has intrinsic values which transcend our powers of estimation. Those who believe that a future life depends on making the most and best of this one have the most potent of all motives for their work. If working well be the test of truth, this view is the true one by the supreme sanction of pragmatism. At the very least there is probably no such school for developing deep and genuine humanism as that afforded to those engaged in this service. Here altruism reaches its best flower, and the lives of these workers are irrigated from the deep perennial springs of love of mankind, and the perfection of this inestimable service we owe thus to these unfortunate children who are least conscious of it.

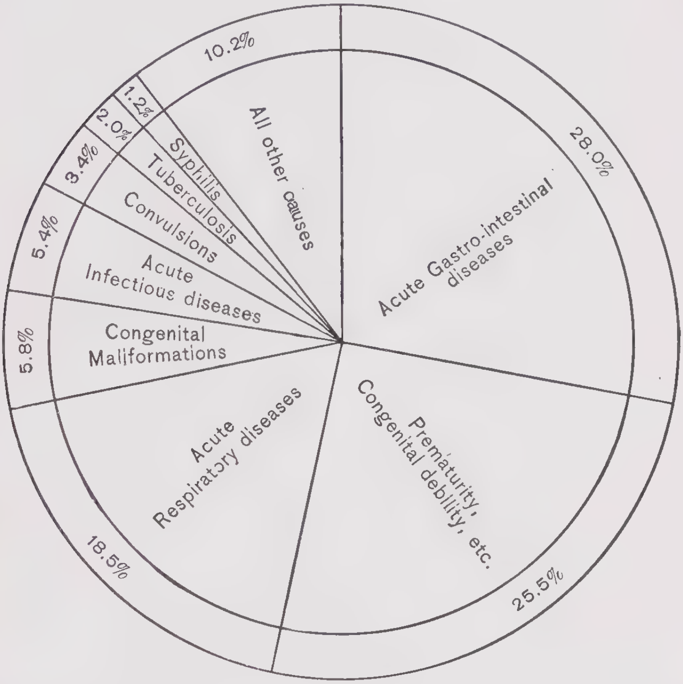
The Children's Farm Homes Association (England) deprecates pouring London and other town-bred children into country districts where they demoralize country children, which is a poor return for the current that flows from the country to the city and which recruits the very best positions there. But town life deteriorates physique. Of the 65,000 pauper children, 8,000 are actually adopted by the guardians of the poor. The ratepayers are indignant at the beautiful buildings provided for paupers. Thus, it is now proposed to rent or hire farms in Nova Scotia of 200 or 300 acres each and place 15 or 20 children on them. When they reach twelve or fourteen, all boys who choose army, navy, or mercantile lines and such others for whom this is thought wise, are to be returned to England after being built up by a few years in the colonies. The scheme has already been tried out in a small way. Their condition very greatly improved and many of them preferred to remain permanently in the colonies.

CHAPTER XII

PREVENTIVE AND CONSTRUCTIVE MOVEMENTS

Infant mortality—Its statistics—The New Haven Conference of 1909 on infant mortality—Foundling asylums and day nurseries—Children's rooms and home playgrounds—Dr. Miele in Belgium and the Ghent school for mothers—The International Congress—Infant milk—Budin's work for mothers and the organizations that have grown from it—The Motherhood School of St. Pancras—The Mothers' Union—Milk inspection and medical milk commissions—The Kaiserin Auguste Victoria-Haus in Berlin—National League for the Protection of the Family and divorce statistics—Infants and the collegiate alumnæ—Associated charities—Social settlements—Some Japanese relief methods—Public hygiene—Filth in America—Health of school children—Meaning of the school smell—Right posture—The country —Free meals for school children—Public baths and dispensaries—District visiting and instructive nursing—Child insurance—Eugenics and its relation to these euthenic agencies—Can we improve the race? —Boys' clubs—The Boys' Brigade—The Boy Scouts—Girls' clubs—Evening schools and recreations—Vacation schools—Story-telling and libraries—Moving-picture shows—Children and the theater—The institutional church—Sunshine society—Sunday-school methods and new departures—Playground movement—Citizens' organizations which are auxiliary to the public school—The departure from the old *laissez-faire* method involved in these institutions.

In England, *infant mortality* under the first year is about 132 per 1,000, in France 137, in Belgium 165, in Italy 172, in Germany 202. All our hygienic arrangements till very lately could not check this appalling loss, although we can prolong the expectations of life for every other age. In the hot months it rises prodigiously, and it is at least six times as great for bottle-fed as for breast-fed babies. The intelligent prevention of infant mortality requires birth registration; in this we are lamentably deficient. This is well brought out by Dr. Helen C. Putnam. One health department in the summer of 1910 conducted a midwives' correspondence school, sending fortnightly a lecture through the mails to each registered midwife, with questions to be answered on the value of recording births, prevention of blindness, and hot-weather care, this latter circular in nine languages, all under Dr. Drake. Americans are not only wasteful but superficial. In 1909, there were only 21 States with good laws requiring registration of births, and many of these were not enforced. In not one State or city is registration accurate enough to be up to the census standards of 90 per cent, although Boston claims to have recorded 95 per cent of its births. The registration area of the country comprises now about ½ of the population. If we multiply the returns from it by 2, we learn that about one fourth million babies are dying annually or that ⅕ of all deaths are under one year of age. Under 5 years of age, 400,000, or ¼ of all die. But these figures do not tell those dead when born or record abortions, which have been estimated at ⅕ of all conceptions. These statistics are not only appalling but are a disgrace if, as all agree, half could be saved. Infant mortality is a menace to the nation even if other mortality rates are decreasing. Every civilized country dignifies the advent of a citizen with a birth certificate except the United States.



Causes of Infant Mortality. From a classification of the causes of 44,226 deaths under one year of age in New York, Philadelphia, Boston, and Chicago, in a lecture by Dr. L. Emmett Holt in the course on Sanitary Science and Public Health, in Columbia University, 1909.

Here we record every trifling business transaction, keep pedigrees of blooded horses, cows, dogs, and even cats, and yet children are born and many of them die without the slightest record. We know the wheat produce of the country almost to a bushel, but are ignorant

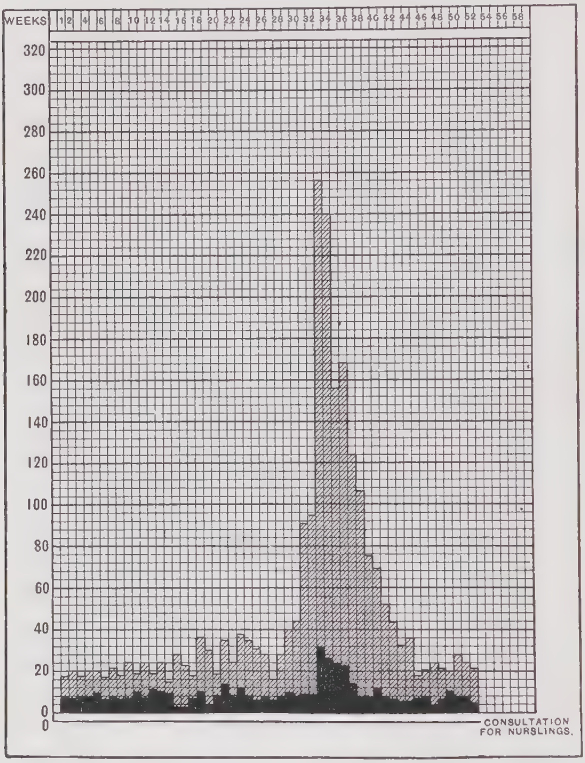


Diagram Representing:

First—The mortality from diarrhœal diseases, among babies, for one year, arranged according to weeks. The high rate in the summer months is indicated by the sudden upward spurt of the column.

Second—The relative values of maternal nursing and artificial feeding. The outside border of the "Eifel Tower" indicates the mortality among bottle-fed babies. The darker portion inside represents that of those maternally nursed. The diagram is taken from Budin's "Consultations des Nourrisons."

of the children of the country. The annual deaths from diarrhœa and enteritis in the registration areas are about 52,000, ranking fourth in the causes of frequency, while in foreign records and from some of our better city records and hospitals and private reports, they seem to be the chief cause of death under two years. Which is right? They kill six times as many infants as adults, but are often classified among adults and so are underrated for infants. In most parts of Europe there is a decline of the rate of infants dying to those born. England shows its infant mortality for each of the first 4 weeks and each of the first 12 months and finds that ⅓ of the infant mortality occurs in the first month, the causes being premature birth, congenital defects, atrophied debility, and inanition, caused by antenatal influences. Next come diseases due more or less to inheritance. The decline of infant mortality in Europe is least during the first three months. This suggests that environment is more improvable than antenatal influences. In the first three months more male infants die than females, although more males are born. In Europe natural breast-feeding is the best curative agent and yet it is very rapidly declining in this country, and this makes our literature that is so rank with romance about maternal instincts mushy. In congested districts, where the death rate is high, the infant death rate is highest, and causes that reduce the birth rate lower the vitality of the children that are born. Infant death rate is the best index of local sanitation. When it comes to prevention, the following questions arise, viz., as to the relative wisdom of day nurseries, of pensioning mothers, supplying clean milk, educating parents, etc. In England and Wales illegitimate children die more than twice as often as legitimate children. Statistics of abortions during the first three months of prenatal life are needed, for out of 100 premature births 40, Irving Fisher thinks, might be prevented, and out of every 100 babies dying of syphilis, 70 might be saved; but this contagion is not even reported to our health board, nor do we require those about to marry to be free from it, although it is the only disease known to be inherited in full virulence. In England and Wales out of 1,820 suffocations, in 1908, 1,593 were under one year of age and were mostly due to intoxication of the parents. We ought to have statistics as to the vitality of younger as compared to older children, and of the effects of large families, and of the age of parents on the birth rate. How shall we increase interest in registration? It should be a matter of self-respect to be correctly entered on the birth register, as much so as to have one's marriage legalized. Dr. Woodward examines registers to see whether the birth of deceased infants was recorded and tries to interest parents by sending them a birth certificate, and in France expectant mothers are sent blank birth certificates with the baby's outfit. Michigan has led in penalizing neglect with a fine for each unrecorded birth detected, and the vigilance of officials is secured by the fact that the fine goes to the official who detects it. In Detroit during the first three months there were nearly three times as many births reported as previously and the State recorded 15,000 more births than in the previous year. Two hundred and twenty-four births were found not reported. Strange to say, native-born Americans resist this most. In school, officers sometimes must judge of the children's age by inspection of their teeth.[1]

In November, 1909, a conference on the prevention of infant mortality was held at Yale in connection with the meeting of the American Academy of Medicine, specializing in medical sociology at which the relations of alcohol, obstetric practice, tuberculosis, mother's occupation, diet, syphilis, pure milk, child-bearing, with reference to infant mortality were discussed. The object always should be not only to keep infants from dying, but to keep them well. Other topics discussed were care of infants apart from their mothers, assisting the latter in the care of sick infants in their own homes, the education of parents, etc. As a result of this conference and probably of Dr. E. T. Devine's "The Waste of Infant Life," The American Association for the Prevention of Infant Mortality has been formed. So far, the association has done little but issue a few excellent leaflets. One writer, Dr. C. E. Page, advocates that as our ancestors went on all fours, that going so again occasionally is extremely healthful for those about to become mothers. He urges that "every baby should be encouraged to creep as early and as long as possible and not to find his hind legs prematurely.[2]"

Foundling asylums among the Catholics are often large institutions with secrecy. No information as to names is required or sought. The aim is to meet immediate practical needs. "The secrets of this class are considered and held as a sacred trust by the Sisters of Charity who direct this institution." It is claimed that this method decreases infanticide. There is naturally very great mortality in these institutions, but on this point, too, statistics are not attainable. A beautiful and attractive cradle is often open in a bay window on the street where any unfortunate mother may deposit her child and know that it will be well cared for.

Dr. Theodate Smith has prepared a list of over 30 asylums and foundling homes in this country under various religious and philanthropical auspices, but concerning most of them very little can be learned. Small babies do not thrive in large institutions. A social worker writes that in a certain large city the undertaker has a regular tri-weekly schedule for his visitations and is never sent for. These children are often buried in saints' names.

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[1] See Dr. Hermann Schwarz, Report of the Pædiatric Department of the Maternity Polyclinic, etc.

Above all, see Budin's great work, The Nursling, Maloney's translation. London, 1907, 199 p.

Report on Infantile Mortality, by S. G. H. Moore. Huddersfield, n. d., 144 p. National Conference on Infantile Mortality. Rep. of Proc. for March, 1908. Westminster, 1908, 200 p. Prevention of Infant Mortality, being the papers and discussions of the Conference at New Haven, Conn., Nov. 11, 12, 1909. Rep. from the Bull. of the Am. Acad. of Med., 347 p., also as a practical hand-book the Mother's Companion, by Mrs. M. A. Cloudesley Brereton. Lond., 1909, 162 p.

[2] Household Foes: A Book for Boys and Girls, by Alice Ravenhill. London, Sidgwick & Jackson, 1910, 359 p.

Infant Mortality—What Is Being Done in Boston, by John M. Connolly. Hygiene and Physical Ed., Oct. 1909, pp. 672–682.

Poor Law Babies in London and Berlin, by J. E. Lane-Claypon. Nineteenth Century, Sept., 1910, pp. 450–466.

Day nurseries, says Mrs. Arthur Dodge, fifteen years before the Chicago Exposition, made no attempt to do anything in the way of educating their children. The kindergarten has had a great influence upon, and many of its features have been introduced into, the day nursery, which is now tending to be a neighborhood center, with mothers' meetings, etc., so that in some localities it takes the place of a social settlement. Even if many mothers stayed at home, the day nursery is better for their children than they would make their home. During the last ten years, the number of day nurseries in this country has grown from 110 to 402. This is due largely to the industrial situation. Thus it is not a makeshift. It has even been suggested that the state pay mothers for the care of the children. Berlin spends $3,000,000 a year for this work, and it is estimated that in New York it would need $6,000,000 to do it well. The day nurseries now care for about 13,000 youth in the country per day. It is only lately that their work has stood out as a system. The nurseries exist simply because they are needed. They are being started all over the South, which owes its present prosperity to the mills. Should they be started in the cotton districts, so that mothers may go to work and earn a wage from which they can afford to hire care for their children, although at the expense of their own health later?

Dr. L. N. Wilson found that architects were rarely asked, in designing a house, to make any provision for children, at least more than an extra room for a nursery or bedroom. Occasionally a room is set off in a distant part of the house, so that the children may not disturb the parents, or the mother wants a baby's bedroom next her own. Builders often think chiefly of selling their house later. Very costly structures often lack such common means of comfort and safety as screens on piazza, roof playrooms, outdoor playgrounds, sun parlors, etc. A Western city has a block of apartment houses surrounding a large playground of nearly 5,000 square feet, with trees, flowers, birds, gymnasium, hammocks, swings, a sun parlor with piano on the roof, etc., and the physical character of the children is greatly improved. In the suburb of a large European city the home of a wealthy couple was pointed out in which there was a wing for children where they were made entirely responsible for the care and comfort and conduct of it and could cook all sorts of things, make all the noise they wanted, invite their parents and even friends to dine, with their own study room and private chapel, where their mother had them spend half an hour in quiet each day. We have not realized the latent possibilities here. The most rudimentary of these needs is a large piazza or open place where children can play, sleep, and eat, protected from insects, and another room for winter or wet weather, with a simple stage and some gymnastic apparatus, wall space for pictures, movable partitions, so that nooks and corners could be set off, and perhaps sand piles. For $25 every back yard that has any space could be pretty well equipped to the very great benefit of children.

The Ghent School for Mothers was motivated by the high rate of infant mortality (33 per cent) which prompted a young physician, Dr. Miele, in 1901, to devise a system by which in a city of 162,000, with wages low and many women employed in factories, these conditions could be bettered. With the aid of the Bureau of Charities, he founded a *Society for Helping Mothers* and soon 1,000 babies a year were brought to his dispensary. This work is now conducted in 12 sections: (1) the dispensary, ⅘ of the patients paying; (2) visiting mothers selected from former beneficiaries who showed greatest skill and intelligence, but worked without pay; (3) mothers' friendly society, open to any mother with a child under fifteen months on the payment of three cents a week, which is remitted in case of need. The member receives free medical service at the dispensary, including vaccination; (4) a milk depot from which the Bureau of Charities distributes humanized or sterilized milk without payment on Dr. Miele's orders; (5) a milk station distributing milk to mothers who nurse their own babies; (6) milk depots where sterilized milk is sold at six cents a quart, or even as low as two cents to very poor mothers; (7) Dr. Miele also, in his own home, prepares special food prescriptions for babies with digestive troubles, which he furnishes at about one cent per feeding; (8) health talks to mothers, with lantern slides, on hygienic clothes, etc., on Sundays; (9) a course in child culture to girls from fourteen to eighteen, with a little anatomy and physiology and practical courses in feeding, weighing, and a practicum for the charge of babies. These courses are free for two years, after which the girls are paid 25 francs a month to help the doctor; (10) a training class for foster mothers who, on completion of the course, are permitted to receive two or three infants whose mothers work in factories and who must take them weekly to the dispensary for inspection; (11) these mothers, after further training and experience, may be given a diploma and conduct crèches; (12) a select class for nursing skin diseases, tuberculosis, incubator babies, etc., there being no trained nurses in Ghent. The Bureau of Charities grants Dr. Miele 1,500 francs per year. Infant mortality, we are told, has been reduced to 4.9 per cent.

In 1902, 17 countries were represented in an international congress at Berlin which unanimously resolved "that a woman should not resume her work until five weeks after confinement." But ten years previous France had recognized the need of caring for the mothers of the nation. The *Mutualité Maternelle* was founded in Paris in 1892. This institution grew rapidly, and in 1908 nearly 100,000 francs were paid for benefits and prizes for nursing. The society now has sixty civil and three military sections. It aims to secure four weeks' cessation from occupation for mothers after the birth of their children. To be eligible for its benefits, the mother must be at least sixteen and a wage earner or the wife of a wage earner. She pays three francs a year and on the birth of a child receives twelve francs, or eighteen in the case of twins, for four weeks, provided she does not return to work. The first payment is brought her by a voluntary visitor who must be herself a mother and who gives advice and information. For the fourth payment, the mother goes to the nearest station, of which there are now 12, with her baby and, if she has nursed it for the whole month, receives an extra ten francs. Each station has a dispensary and an adviser who weighs the child and instructs the mother. Visitation is continued, but the mother is urged to bring her baby regularly. If it is ill, a physician attends it. The mother's visits at the station for consultation are desired for twelve to fifteen months. Mortality, which for Paris as a whole is 15 per cent and for the working classes 24 per cent, is reduced for those who make these visits to about 8 per cent for those visited, and to 4.4 for those having consultations. Well-to-do mothers also help the doctor at the stations. In 1909, the members of the association numbered 26,000 and the babies brought were 2,489. Visitors often become greatly interested in their foster children and both parties are benefited. In 1908, there were 3,120 separate weighings and 3,001 consultations.

The *Allaitement Maternel,* or maternal wet-nursing institution of Paris, is a refuge for pregnant women, founded by Madam de Vinne (1876), who gradually attracted to her aid other wealthy ladies and, in 1880, the institution received municipal support. It helps women who nurse their children and seeks to so environ them that they can do so most efficiently and will feel it a normal social duty. The society makes no inquiries into the private position of the applicant, whether married or single, or her creed, but will help any woman who desires to fulfill her full duty as a mother to her child and support her morally and materially in so doing. It has already aided some 50,000 women. It established, in 1892, the first refuge in France for *enceinte* women, feeling that agencies that do most for the nursing mother do most for the child. It is remarkable to see how at these refuges a sense of resignation and easement supervenes as these mothers address themselves to their needlework and other preparations for confinement. The society has several dispensaries for mothers and their children and a free canteen for those who are nursing their babies.

France, in its *Œuvre du Lait Maternel,* created the first free restaurant for nursing mothers in 1904 and now has half a dozen such in Paris and the work has spread to other countries. These restaurants are in the poorest parts of the town, have supplied hundreds of thousands of free meals and helped save the lives of unnumbered babies. The beginnings are everywhere very simple; some abandoned room or shop is cleaned up, very simply furnished, a woman engaged for a few hours every day and nursing mothers invited. There is the greatest cleanliness. Absolute silence is required, which is favorable to the children and prevents disputes. A footstool is provided for each mother, as it is necessary for her to hold and feed the baby while she eats. The mother need not give her name, address, or reference, and can come as long as she likes, only when the baby is eighteen months old she must bring a medical certificate prescribing that she feed her child longer. The bill of fare is very carefully chosen to facilitate good nursing. It is found that one cook can supply 30 meals between eleven and one and that, rent included, each meal will cost only six cents.

England has a national conference on infant mortality which began its annual meetings in June, 1906, and publishes very instructive and interesting proceedings, some of which make material contributions: for instance, the death rate from "premature birth" did not begin to increase until the general birth rate began to decline, and since then the two movements have been inversely proportional. Stillbirths have probably increased and the ratio of abortions is probably growing.

The first motherhood school in England is that of St. Pancras, under Dr. Sykes, in 1907, inspired by Dr. Miele's work. Consultations here are held twice a week where babies are weighed and directions and advice given. Dinners for nursing and expectant mothers during the last three months of pregnancy are a feature here. These cost three cents and consist of a substantial dish of meat and vegetables and a pudding. In case of need, the school committee pay. There are various classes in care of babies, cooking, buying food, clothing, mending and making, housekeeping, etc. The school seeks to encourage natural feeding of infants, and to fight every influence that makes bottle-feeding seem easier or more desirable. It seeks to reduce infant mortality, advocates a better system of notification of births, sends cards of advice to mothers, selects from the births those most desirable to visit, insists on medical advice before weaning, distributes cards of introduction, and holds fathers' evening conferences. The cost of instruction in the classes is paid by the London County Council. There are clubs for older girls and young wives, a department of home visiting and a fathers' club open once a week and allowing smoking, with occasional addresses and demonstrations by physicians and a syllabus of duties of husbands to their wives and children. There are now about a dozen of these mothers' schools in England on the same general pattern. In this country, there are beginnings of similar work by visiting nurses, medical milk commissions, the Caroline Rest, settlements, the institutional church, etc.

England has a Mothers' Union, the object of which is to uphold the sanctity of marriage and to awaken in mothers a sense of their responsibility, and it organizes everywhere bands of mothers who will unite in prayer and seek to lead their families in holiness. It has members, who are married women, and associates, who need not be so. It publishes two periodicals, *Mothers in Council* and *The Mothers' Union Journal.* It numbers nearly 75,000 members and issues useful pamphlets on how to protect children from moral and physical dangers, has an interesting brochure, "Congratulations to a Mother on the Birth of her Child," distributes cards on common accidents, infectious diseases, house sanitation, cleanliness, stings, cuts, foreign bodies in eye, ear, nostrils, throat, bruises, burns, etc.

The Caroline Rest (1907) provides convalescent care for sick mothers, educating them in child hygiene at the same time, with three weeks of demonstration and practice where they are taught how to feed, bathe, dress their babies, keep the milk, prepare barley water, wash bottles, sterilize, give injections, and many other things, guided by the head nurse. In the new home there is a laundry with a long row of individual wash tubs, where each mother can wash her own baby's clothes, which she is taught to do, and to mend. Modifications of milk and its practical treatment in household economics are learned and there are courses in other infant foods. Thus scientific facts are garnered. It now has an attractive home where at the very first it admitted 73 mothers, babies, and little children. All the mothers who visited the Rest were convalescent. The curriculum was divided into two courses and mothers were required to attend two classes daily throughout their three-weeks' visit. There was a get-well and a keep-well class. The educational effort in the homes of all who seek aid is maintained and the work of all the nurses is carefully recorded. It is believed that such care would reduce the mortality rate in New York from 14 to 5 per cent and would greatly reduce invalidism among the wives of wage earners.

Dr. Theodate Smith has prepared a list of twenty schools for mothers in various countries. The city of Oxford has organized this work and given it both a practical and scientific character and there are no end of hints on the care of babies, on health, visitation, etc. There are *baby welcome clubs,* directions for avoiding summer diarrhœas, etc. Some of these branches hold baby shows with prizes to mothers who have done best by their infants.

Both medical commissions and *milk inspection,* much as their plans differ, are really working to the same end. The first medical commission was founded by Dr. H. L. Coit, of Newark, in 1903. Its object was to lessen the waste of infant life by providing certified milk, which must be entirely free from pathogenic micro-organisms, and the number of bacteria must, under most commissions, not exceed 10,000 per cubic centimeter. It must show unvarying resistance to early fermentic stages, so that sometimes it can be kept for forty-five days without souring. It must have a constant nutritive value and a uniform percentage of fats, proteids, and carbohydrates. Such milk usually costs 12 to 15 and sometimes 20 cents a quart, although

Miss Warren, of Waltham, Mass., has made it pay at 12 cents. The commissions want standardized milk to meet clinical requirements and their method is indorsing the work of dairymen who fulfill these exact conditions. The inspectors, on the other hand, work under boards of health and they demand absence of dangerous germs and a bacterial standard of usually 50,000 per cubic centimeter. They strive to influence legislation. States and cities are often opposed by dairymen who regard them perhaps as natural enemies. A typical case is of a rough farmer carrying the legislative committee with him by telling with natural eloquence how he kept his barn full of sweet hay and the fragrant breath of cattle, which he loved, and how a milk inspector came, smoking a vile cigar, to tell him his milk was not clean. These agencies have together resulted in milk depots for those unable to pay the price of certified milk and to whom both whole milk and the modified forms necessary for infant feedings are provided. Some of these depots are schools for the training of mothers and also bureaus of research where children must be brought at intervals and examined, weighed, and recorded, and feedings modified according to them. Emulation is aroused to show the healthiest baby. Nurses visit and instruct. Milk exhibits are held, with miniature models of stables, dairies, and laboratories to show the dangers of dirty milk. This problem is complicated by the warfare between producers and milk dealers. A proposed Massachusetts law would make it a crime for a farmer in one of the 752 distinct sources of milk in the city of Worcester, e. g., to sell milk directly to a consumer. It is impossible to test whether milk is watered, for it always contains much water. It is not quite clear whether the standard of the same cow varies. It would seem that she will grow thin and her own body will undergo changes before her milk supply will fail or change. Milk is one of the most complex of all substances and neither the microscope nor chemical analysis is entirely adequate to cope with it. The young mammal finds everything in it that all the parts and organs of its body need to grow by. If it be true that mother's milk sometimes does not agree with the baby, it is doubtless largely a matter of dilution.[1]

Mr. Straus, of New York, says Mr. Phillips, simply distributed pure milk, selling it in 3-, 6-, and 8-ounce bottles, but with no medical supervision or inquiry. This is not sufficient. The New York Milk Committee have found that much more must be done, for children die because mothers do not know how to care for them. So there is a programme of education for mothers whose infants are fed by this committee. When distribution was begun it was found that not only nurses but physicians were needed and as there was no money, volunteers were asked for, and 36 came in three weeks, who met the babies once a week, examined, weighed, and prescribed for them. The milk depot is an important factor, then, in saving the lives of infants. There are two nurses not connected with any depot who visit from house to house, although their work is not so successful as that of the nurses in the depots, because milk appeals to and acquires a hold on mothers who often resent the intrusion of a visitor but want milk. The work cannot be on a permanent basis until it is self-supporting and milk is bought at cost. It takes a programme of education in milk dietetics to see the difference between prepared and common milk. The depots should have a model milk company take over their work. A milk company should coöperate with the settlement, hospital, and so on in the same way. Mothers should pay the whole price or else it should be supplied to them freely. The future work of milk depots is social. It is one of the most elementary and simple ways of getting at mothers in gross ignorance. Modified milk should only be sold to those who cannot breast-feed or cannot make the modifications at home. One nurse can only care for 50 to 75 babies. Thus more emphasis is placed on distributing clean whole milk and less on commercially modified milk in individual feedings. Every milk depot will in the end become a milk store and a social center and not merely a distributing station, but under pure food conditions.

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[1] Ein Beitrag zu den Unterschieden zwischen Kuh- und Menschenmilch, von Dr. Arthur Schwarz. Jahrb. f. Kinderheilkunde, 1909, vol. 20, pp. 441–457.

Über die Komplemente der Frauenmilch, von Wilhelmina Kolff und Dr. C. T. Noeggerath. Jahrb. f. Kinderheilkunde, 1909, vol. 20, pp. 701–731.

Die Beurteilung des Ernährungszustandes der Schulkinder, von Dr. Gastpar. Zeits. f. Schulgesundheitspflege, 1908, vol. 21, No. 11, pp. 689–702.

In its new Kaiserin Auguste Victoria-Haus (opened in 1906), Germany has now a model institution for the world for correlating and enlightening all agencies that tend to diminish infant mortality. It has three large buildings running up in some parts to the sixth story, all admirably planned and equipped for the purpose, supported by the city of Charlottenburg and the state and by gifts. Besides rendering philanthropic service, it conducts clinical experimental investigations. It has been found, e. g., that of all deaths in Berlin under one year of age, and in Germany, just about two thirds died of digestive trouble, of which some 200,000 were vigorous at birth and should have lived. The aim of this institution is both medical and social, viz., to promote breast-feeding by every possible means, and where this is impossible to find the next best way. Hence, it is "an institution for physiological investigation for infant nutrition with clinical treatment." It has a corps of department heads representing gynecology, pediatrics, etc., a special room and department for those born prematurely, for confinement and those awaiting it, a milk establishment, wash room, library, lecture room, nursery, and has established a new order of sisterhood by itself for which it trains lady nurses like the Norland House in London. Like it, too, it trains midwives. It issues *questionnaires,* coöperates in its educational aspects with the Froebel-Pestalozzi House, admits students from other lands, seeks to answer definitely the very many questions, nearly all of which are now unsettled in this vital field, and has an annual budget of some $50,000.[1]

Germany also held in 1909 the first Deutsche Kongress für Säuglingsschutz.[2] One of the best organizations for this aim is that in Munich which, beginning in January, 1910, publishes a monthly journal—*Blätter für Säuglingsfürsorge.*[3]

The National League for the Protection of the Family is some thirty years old. It estimates that there was a deficiency of 259,813 marriages in this country for the five years of hard times after 1892. In 1900, there were 9.3 marriages per 1,000 population. The rate in this country is exceeded only by that of Hungary, and it is highest in the South and Middle West. The divorce rate increases as we go West. Corrective legislation affects statistics for a few years and then new ways of securing divorce are found. A large proportion of those South are among negroes. The present ratio of divorced to married is 1 to 12 and the rate increases fastest in the cities. This country leads all the countries of Europe. In one Dakota county, the ratio of divorces to marriages was 1 to 1.6. The average length of married life before divorce is between nine and ten years. Children are affected in about two divorces out of every five. Among professions, actors and showmen lead and musicians come next, while among farmers the divorces are least frequent. Suicides in Europe are from four to ten times as numerous among the divorced as among the married and about twice as numerous as among the widowed. In the last twenty years, there have been at least 175 separate statutes amending marriage laws and over 100 improving divorce laws. These changes are almost always improvements. Only South Carolina does not legislate on marriage or require a license. Some half dozen States forbid it for first cousins, insane, epileptics, and diseased. Over 27 States now have some restrictions on the remarriage of divorced persons. A uniform law through all States is greatly needed. In some European States military service and even difference in religion is a bar. In most, civil marriage is all that is necessary and a religious ceremony may follow but cannot precede this. In a few countries ecclesiastical courts have sole jurisdiction over divorce. Fourteen require attempts at reconcilation. Everywhere divorce is increasing. In this, Norway leads, then come Belgium, the Netherlands, and France. Everywhere, too, adultery is less often brought forward as a cause. Although the Catholic Church disallows divorce, in Austria 77.7 per cent of the total number of divorcés were Catholics, although 91 per cent of the population belong to this faith.[1]

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[1] See Festschrift zur Eröffnung des Kaiserin Auguste Victoria-Haus zur Bekämpfung der Säuglingssterblichkeit im Deutschen Reiche. Berlin, George Stilke, 1909, 40 p. See also the excellent work of Arthur Keller, Die Fürsorge für uneheliche Kinder. Leipzig, Franz Deuticke, 1909, 73 p. Also, his series of articles entitled Aus der Praxis der Säuglingsfürsorge. Separatabdrücke aus "Monatsschrift für Kinderheilkunde." Bd. iv, Nr. 10, Bd. v, Nr. 1, Bd. v, Nr. 5, Bd. vi, Nr. 10.

[2] See Stenographischer Bericht über die Verhandlungen des Ersten Deutschen Kongresses für Säuglingsschutz. Berlin, George Stilke, 1909, 143 p. Also Satzungen der Deutschen Vereinigung für Säuglingsschutz. Berlin, Julius Sittenfeld, 1909, 6 p.

[3] A sociological statistician has figured out that a healthy eight-pound baby is worth about $362 a pound as a wealth producer and that last year's crop therefore should stand us at about $7,000,000,000, and that, from this point of view, babies are worth more than ever before.

Mabel F. Huddleston reports that the New York Branch of the Association of Collegiate Alumnæ, in 1909, sent out reply postals as to the criticism of women's colleges and what changes could be recommended, with one of the most interesting and remarkable results, viz., a greater consensus of belief in the desirability of Home Economics than of any other subject not already a part of the college programme, and a profound interest in topics relating to the development, protection, and environment of the child. Accordingly, the committee recommends a required course once a week on the hygiene of environment in the last part of the freshman year. Then should come personal hygiene, covering many points in domestic science. There should be an elective course on the hygiene of childhood, treating heredity and physical conditions and growth, with field study of children in schools, playgrounds, and industries, and lastly an elective course on the family. The result of this consensus deserves peculiar attention and is of the greatest significance, for precisely those subjects which the spinster professors have ignored and sometimes evicted from the course, and which girls of college age often dislike naturally or because of the influence of their teachers, are precisely those which these very girls a few years later when they feel the vital touch of life deem of supreme importance. Will these lessons ever be heeded in the women's colleges?

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[1] See Dr. S. W. Dike's summary, 1909. He shows that divorce in this country is increasing about three times as fast as the population, and insists that the family is the fundamental permanent problem of human society, the very word economics meaning the law of the home.

Philanthropy does not do its whole duty to the child by burying it if it dies, says Robert W. Bruére. Society is too ready to throw human beings on the junk heap and the result is that we are ransacking Europe for workmen. Our insurance companies are providing physicians and nurses freely to their policy holders because it costs less to check sickness than to pay sick benefits. New York is trying many experiments to economize child life as a matter of business as well as of religion. In the summer of 1909 it sent 600 sick babies to Sea Breeze for a considerable term, and over forty-one mothers and children were there at least nine days. There was a Junior Sea Breeze with shacks for sick children, diet kitchens and a corps of district nurses, which in four years has reached over 40,000 mothers and babies. The chief cause of the awful mortality of babies of the first year is the neglect of working mothers before birth, so nurses are sent to the homes and the rate of mortality has been almost incredibly reduced. Dr. Budin began his great reforms in Paris with a pair of scales. In New York equal prominence is given to the trained nurse, who visits, keeps accounts, records statistics, etc., a close alliance is formed with milk dealers so that the fight for pure milk is no longer an assault upon them and the farm. Physicians are coming to control the matter from the laboratory and clinical viewpoint, and it was found that farmer and dealer, if properly approached, were not vampires but were glad to join hands with milk committees. By a recent contract, the product of one of the best herds in the State and the use of one of the best laboratories in the city are combined. In New York City there are 13,000 mothers who, because of under nourishment, work or disease, cannot nurse their infants, and 9,000 of these are compelled to take the hazard of an infected milk supply, so that 40 depots in New York, each capable of supplying 250 infants, are needed. We need a model milk company and there is no doubt that the price of clean milk could be put within the reach of the poor. The matter should be approached from the social rather than the individual standpoint.

The *association, organization, or unification of charities* really began in the Elberfeld system modified, and was introduced to London in 1869 and brought to the United States by S. R. Gurteen, of Buffalo, in 1877. Sometimes they are called Bureaus of United Charities. They involve the complete separation of relief from all questions of creed, politics, nationality, and aim at social and moral elevation, the reduction of vagrancy and pauperism, the preventing of indiscriminate duplicate giving, insisting that it may be a crime to give doles on the street and that charity is a science as well as a virtue. They also prevent imposition and provide immediate relief. To this end, they first secure the coöperation of all charitable agencies in district and city, and use visitors, largely volunteers. They emphasize registration and the minute description of each case on a large card. They coöperate with other cities, keep track of families, check the tramp evil. There are now probably 200 of these larger societies in the country. Some relieve and some prevent. The ideal of the movement is to bring into harmonious coöperation all charitable efforts, public, private, church, individual, and to make them all most effective. These are (1) breadwinning schemes with probably wood yards, laundries, labor bureaus, and day nurseries; (2) health methods, such as city regulations and model tenements, dispensaries, nurseries, sick diet kitchens; (3) thrift schemes, like coal-saving societies, loan associations, penny banks; (4) educational work, cooking classes, kitchen gardens, temperance billiard rooms, music, literature, etc.[1] This is a movement which for about one generation has studied to coördinate the efforts of many agencies for the relief of poverty and suffering. In many cities, there were scores of these, and "rounders" developed who went from one to another and made imposture as profitable as it was easy. Moreover, many needy cases were not detected or provided for, so there were gaps as well as overlapping. Now, at the central office, a card or envelope is kept for each case with physical descriptions and the story the applicant tells, which is often the most identifying of all features. (It would not be a bad plan to supplement these by the Bertillon tests for all detected in imposture.) There are paid and volunteer visitors who study the most effective forms of aid in individual cases and who meet statedly and compare notes. London has 58 distinct committees which represent an older agency, train workers, correlate their work to that of the poor-law commissioners, undertake various laws, preventive work "for boys liable to graduate into unemployment," keep in close touch with the police, who are far better educated and thus far more effective in all this kind of work in Europe than in this country, coöperate with employers of labor and with employment bureaus, with health boards, hospitals, dispensaries, and churches, can greatly increase their forces in hard times and in bad weather, present typical cases and propagate sound principles of charity which they strive to make a science without making it less of a virtue. In many of these institutions in Europe and in this country, small loans are made, clothing collected, repaired and given or sold at cost, coal and milk agencies, provident wood yards, laundries where those able can work for breakfast and lodging; waifs, strays, stranded and sick are helped and encouragement and friendly advice given and personal relations established. At Torquay first, since then in many other places, teachers are sent to children's hospitals. Extension work and research are well illustrated by the elaborate report of the Edinburgh Charity Organization Society in 1906 on the physical condition of 1,400 school children from the poorer districts who were found to be shorter, lighter, weaker, with poorer teeth, eyes, ears, lung capacity, strength, than the norm for their age. The Jews in this country have in many cities their own associated charities. Besides the ordinary work, they provide free ice, free burial, free milk for babies in the summer, prevent cruelty, care for defectives and are often greatly aided by magnificent charity balls which are social events. The chief object of all these agencies is to place available funds where they will do most good. They are not primarily for investigation and their visitors or departments rarely specialize on children as they should, although doing much for them. All aim to exterminate professional mendicancy, to prevent promiscuous doles to beggars, to improve the condition of the home generally, to conserve the home, if possible. They often devise and carry through important legislation and some have private summer outings for children, while all strive to affiliate with the work of every other agency with similar ends in view.

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[1] American Charities, by Amos G. Warner, N. Y., 1908, 510 p. The Annual Charities Register and Digest is a Classified Register of Charities in or Available for the Metropolis, Lond., 1909, 697 p.

The complexity of the organized charity is as vast as human nature. No one can look over the reports of scores of these institutions in this country without seeing on the one hand a strong tendency to mechanism and ruttiness, and on the other hand a countervailing instinct to rectify by proneness to novelties and fads. Now deserted wives, now the bread line, now congestion are effective; here survey work or just to relieve prisons, Christmas, Thanksgiving festivals, private information! there the Red Cross (which accumulates to help sufferers from floods, earthquakes, or epidemics at great distances in case of need), now repairing the damage of a "trade wind cyclone," or period of industrial depression, now providing free garden plots for all who will work them, now stressing home, stamp, penny savings, sanitary work, employment. Many print photographs of heartrending cases, filthy homes, shacks, starvelings, show the ravages of drink which if gathered would make a tragic gallery of wretchedness. Does effective human sympathy need so strong a tonic? A very few associated charities, e. g., Pittsburg in its children's bureau, Newark with its committee on children's institutions, have inaugurated a new departure that is so needed that it must prevail. Every city should at least have one expert paidologist to correlate its own child-welfare work and find others, for there is great need of unification here, and it cannot be too often repeated that the best measure of preventive efficiency is what is done for children. A British Parliamentary Committee, after two years of investigation, lately reported that with all the efforts and vast funds devoted to charity in the United Kingdom, little if any progress was being made in eradicating pauperism. It is no dispraise of the noble men and women in the field to say that very few, indeed, of them are competent to grasp the many and vast problems which confront them and which need the very highest quality of training and native endowment, greater even than that necessary to manage effectively our largest trusts. Women especially are so pitiful that they find it very hard to see the larger background of principle from which each case stands out, while many of them tend to rubricize each case and become unable to see the woods for the trees. Almost every association reports each year growth of its activities, more people helped, more money expended and needed. Is the remnant never to approach elimination, or are these open, festering sores never to be healed? The very fact that these charities must keep in touch with the donors makes it hard for them to openly fight certain forms of corporate oppression and greed. We must not forget that there is a great virtue in the donors getting into personal touch with those they help, which all the mechanism ever adopted of accounting for each gift in detail does not atone for the loss of. My personal gift to an individual or family has a directness about it that no general administration can possibly attain. The giver, under our present system, loses some legitimate gratification, as well as incentive to do more. The present scheme is better on the whole, but the old way should be most carefully conserved wherever it is possible. Charities should at least say, "Come and see what we do with your gift and see what it has done," wherever this is possible. Especially should this be done in the domain of the welfare of children who not only make the strongest appeal, but are the most aidable and salvable. Again, wherever possible, all children should be helped through their parents rather than by a working member of an organization. This should be done in the interests of filial piety, in a way to make children regard their progenitors as the sources of their benefaction wherever this can be done by honest conspiracy. *Do ut das*—"I help you that you may help your children"—should be the visitor's attitude, and this not only in the case of the young but of the older children approaching the insubordinate age. Agents should not usurp parental functions to themselves, as natural human egoism so prompts them to do. They should rather efface themselves and stimulate and enlarge the activities of elements of parenthood in all families. Again, other things being equal, help for those with the best and most promising children should take precedence in the interests of eugenics, although these charities probably take less cognizance of this and sin more against it than do others.

The first *social settlement* was the Neighborhood Guild of New York, in 1887, now known as University Settlement. Hull House in Chicago and the College Settlement in New York followed in 1889. In 1895, there were 41 more and there are now over 200. Their work is very varied. Miss Dudley of the Dennison House defines a settlement as "a group of educated men or women or both, living among manual workers in a neighborly and social spirit. Organized work is not essential, but it is a convenient method of getting acquainted with the people. Nothing is essential except residence and a spirit of neighborhood expressed actively." Each settlement must have at least one head worker, salaried and permanent. Hull House is the largest and grew from very small beginnings. In 1909, it had 44 in residence, all of whom are pledged to remain at least two years if voted in after six-weeks' trial. They pay their board and are engaged in some self-supporting work, giving the residue of their time to the work of the Hull House. There are 151 outsiders who come each week as teachers' directors and the weekly attendance is 9,000. The buildings cover a block and include gymnasium, coffee house, boys' club, men's club, crèche, dwelling house, and playground, and there are public lectures, college extension classes in many subjects, clubs of many varieties, dancing classes so numerous that they are now limited to 200, and social conventions are rigidly enforced. There are shower baths, a cottage for the tuberculous, a savings bank, a day nursery, a visiting kindergarten for crippled children, a coffee house competing with the saloon, milk and ice distribution, a juvenile protective league with the Legal Aid Society, labor museum, and book bindery.

The *Dorothea Dix Association Home and School* in Boston for stage children and children of actors is unique in the world. Actors travel and find home-making exceedingly difficult, so that both the health and education of their offspring are liable to suffer. Many parents desire their children to enter their profession and most who come to this school have had some stage experience. The school accommodates twenty-five children between the ages of four and sixteen. One unique feature that has made the institution known and helped support it is the children's concerts, given by two companies of six children each, under adult guidance, in clubs, churches, schools, hospitals, and summer resorts, for $20 each and expenses. One performance a day is all that is permitted and that not a long one. There is a dramatic club which conducts its own business, but is taught singing, dancing, recitation, sketches, plays, etc., and is attended by those not over sixteen and by some outside the school. The school work only goes to the end of the grammar grades. Boston theater companies engage these children by preference, because they are better trained and cared for. No child is permitted to be occupied continuously and an understudy is always prepared for each part, so that there may be a relief in case of fatigue. If there are two performances a day, children alternate, and it is believed that the danger of abuses in this field are slight. This movement is not yet harmonized with that of the society and the laws preventing children from appearing on the stage, the zeal of which is often too indiscriminating.

The Elizabeth Peabody House in Boston, although mainly for the kindergarten work, has extended in this direction as has the Nurses' Settlement in New York and the Dorothea Dix House. The motto of these settlements might well be *do the next thing*.

About four years ago a group of women in settlements asked a number of school principals if they could not help in hunting up the homes of children and serve as connecting links between their home and school. After a year of pioneer work, says K. W. Smith, this group became a committee of the N. Y. Pub. Ed. Assoc., and now there are four or five such. The visitor goes daily to find how she can serve teacher and principal, getting complaints of all kinds. Some children are tardy, dirty, ill, unkempt, destitute, don't care; often there are family problems, etc. She must know a score or two of social agencies and keep in constant coöperation with them. Often she can help but more often get help from them. The most ignorant mother can very easily be made more sympathetic with the teacher. It is essential to know whether the child has any club connections, is known at the associated charities or other agencies, has a court record, etc. Many are cruelty cases. Sometimes a score of calls are made in a day. A deaf child's mother opposed her going to the Horace Mann School till she was herself taken to it. Parents are made to see the mental and physical defects, need of transfers, treatment, vacation cures, etc.

Ever since the work of Du Prey, in France, who sent his students to investigate social conditions in definite localities and Booth's "In Darkest England," a new wave of interest has been felt by intelligent and favored classes in "how the other half lives." Students, especially in sociology, literary men and women, and sensational writers have explored the slums and we have now a new and voluminous literature recording the experience and observations of those who have lived with the poorest and seen the darkest haunts of vice, or tramped with tramps, or explored the dinner pails of working men; of girl graduates who have been waitresses, laundresses, and servants and assigned themselves to detect all kinds of hardship, abuse, and vice, followed up thieves, sometimes tried to fraternize with them, studied harlots and their ways and views of life, gone out nights where police protection was imperative, gathered garbage, rags, cleaned streets, got in with gangs, etc. This has been done sometimes for adventure, or for lurid screeds in yellow journals, as well as in the interests of science and philanthropy. Altogether this movement, however, has made sociology a less abstract and more concrete and fruitful science and given many new impulses to helping agencies. This new form of interest in low life has now its best embodiment in social, college, university, and other settlements. In these institutions, students and educated people live in the heart of the most congested districts and strive to understand and help the conditions. Many of these houses have been established by benevolent men and especially women and bear their names, like the Dennison, Hiram, Hale, Lincoln, Brooks, Jacob Riis, and some two score others. They usually have a head worker, libraries, stated conference, publish annual reports, and occasionally memoirs based upon well-devised researches. Arrangements are sometimes made by which academic students of economics, sociology, ethics, theology, etc., may do more or less work and participate in the deliberations of these houses as a part of their academic training. The activities of the largest of these neighborhood guilds are manifold. They institute clubs for girls, open penny and stamp saving banks, provide the poor with lawyers, establish coöperative apartment houses for young girls employed during the day, equip roof gardens, help foreigners learn our language, loan books and sometimes money, find places, suggest reading, tell stories, conserve native industries of immigrants and many other things with which the world is now familiar. In 1889, the college settlement association of girls' colleges was formed. At an exhibit held at Harvard of this work, 105 institutions in this country and 25 in Europe were heard from. Berlin has a training school for social workers and Simmons and Harvard College have combined for such a course. Schools and courses for this work are also now in operation at Chicago, Columbia, and Clark Universities. Settlements rarely attempt reforms by the method of newspaper publicity. They strive to coöperate with every other agency in the vicinity, to gain the confidence and good will of those among whom they live. They have occasionally established welfare work in large department stores, coöperate with the outpatient departments of hospitals where these exist with visitors, a scheme so well developed in the Massachusetts General Hospital. In a city on the Pacific Coast, they conducted a course of lectures through the winter on the life of children and other institutions in the city. Some settlements are predominantly religious and supported by one or more churches. Quite a number of them seem afraid of boys in the middle and later teens and do little for and perhaps exclude them. Some have cottages or conduct farming schools, or provide toys, take in a few special cases for a limited time. In England, they sometimes have a class for newly married young women and another for those approaching confinement. The South End House in Boston calls itself an institute of constructive philanthropy and for nearly twenty years has published interesting yearly reports and a few important monographs.

Investigations among the unfortunate classes have become an intricate specialty. One thing, however, should be noted: just so far as all and other similar work becomes truly preventive instead of being merely ameliorative of present conditions, it must work chiefly for and on children. Even the Pittsburg Survey, which was in a sense the apical flower of the settlement movement and spirit, had no child specialist, ignoring the fact that not only children but parents' ideas about children are the most specific of all material to work with and the best paradigm of the old ideal, "wax to receive and iron to retain." Again, settlement people often relegate most of their child interests to kindergartners. Their spirit is that of impressing a definite content by a definite method, and they do not, as a rule, feel any commission to study children, but think that Froebel finished this work. Even Graham Taylor's "Charities and the Commons" and now the admirable "Survey" have made little contribution of scientific value to our knowledge of child life. And yet there is no better test of the value of such an institution, of a family, or of a community than how they regard and treat their children. It is through the latter that adults are best educated in the highest and most transforming sense. Of course we cannot improve parents or their homes without also improving children and very much is done for children indirectly by settlements. But the time has now come when every such center should have an expert or a department for the specific study of child life in all its varied aspects from pregnancy on through adolescence. Only specialists begin to realize how unique are the nature and needs of children or how radically they differ from those of adults. Still less do most settlement workers understand the nature of the teens, which are the infancy of man's higher nature and which are now suffering such lamentable and wholesale arrest and perversion. Again, these social workers usually greatly underestimate the importance of religion for the child life which they help. Neutrality is, of course, necessary, but they would greatly increase the good-will of Catholics and of Protestant orthodoxy if they encouraged every child to be trained in the religion of its parents, without which even respect for them suffers. Coöperation with priests and Sunday-school should be hearty and active, even though positive efforts be restricted to the secular field. Again, earnest as is the desire to alleviate misery, settlement dwellers live in too much comfort to attain complete sympathetic *rapport* with their hovel neighbors, and saloon keepers. Pimps and panderers and sweatshop proprietors do and always will use this disparity of social station for all it is worth. Thus, social workers are and always will be worked or used by their clients a little as savages accept aid from comfortable salaried missionaries. Between these two worlds there is always a chasm, however numerous and traversed are the bridges over it, which mere geographical propinquity does not fill up. Wealthy visitors have sometimes taken their wards to their own luxurious homes for hours, days, and weeks, but this is a service of doubtful value for social content. A large proportion of every community must always be poor and the best that can be done is to teach them to make the most and best of it. It is well for the rich to know how the poor live, but not for the poor to know how the rich live, for this knowledge may sow the seeds of bitterness, if not anarchy. The wholesome criticism of the sensible poor upon the mode of life of the rich would, however, do the latter a very great return service. Men, like Morrison Swift, who toil and live with workers and as they do, year after year, whatever we may think of their methods, are far more influential because more in earnest. This is the way Mohammedan missionaries work and win out in Africa. Not that I would have all this done at present. Settlement work, as it is, is splendidly worth while, but its representatives should realize that they have not yet arrived. To be chronically dependent upon the advice of wiser heads is as bad in its way as to beg dollars and live on doles. Moreover, it is inevitable that those used to comforts should magnify the hardships of those used to poverty and that thus they unconsciously cultivate patheticism in those they help. Huxley's rhetorical phrase that life in the London purlieus is worse than the life of the lowest savage is grossly misleading to both as there is no basis of comparison from either a psychological or physiological point of view.

Japan, while adopting as models many of the western relief works and charitable enterprises, lays great stress on inspiring the poor with a spirit of self-reliance and forethought, and has originated some unique forms of relief. In some of the fishing districts where there has been diminution of the catches for years, the inhabitants have been threatened with starvation. In 1905, in order to better their condition, the prefectoral office allotted an area of 250 acres of public waste lands near the village to a thousand of the poorest fishers for cultivation. The land thus broken up is to be leased to the tillers for the following twenty years, and in order to encourage continued cultivation of the land the sum of $2,000 was set apart as a cultivation encouragement fund. A portion of the yield of each year was to be stored in a common granary every year and the proceeds to be returned to the former owners after the lapse of ten years. This was for the double purpose of providing against famine and that the people might acquire the habit of thrift. More than half a century ago some of the prefects of the villages undertook the reclamation of forest land by the village employing the poorer inhabitants in the work. All reclaimed land was left in the hands of the laborers for a period of at least four or five years, sometimes seven or eight, in the course of which a little competence, sufficient to support themselves and family, was usually acquired. The land was then passed on to the still poorer villagers, so that the poorer members of the community in turn enjoyed the benefit of the land. In one village this has worked so well that of 900 families in the village, only three stand in need of any external aid. It is said that 380 have been engaged in the reclamation of this land. Afforestation has also been successfully conducted as relief work. The Japanese schools for the training of household servants and nursemaids are also conducted in a somewhat unique fashion. Morals, reading, penmanship, and arithmetic are included in the course as well as etiquette and manners, "that the girls may learn how to behave themselves in everyday life." The homes for working girls in connection with some of the silk factories are models in their way, and thoroughly adapted to existing conditions and Japanese customs.

Public *hygiene* is both the cause and the effect of improvement of health and its ideals, says Irving Fisher. We are coming to recognize that the mother is a public functionary. The appalling fact that the rate of mortality under one year is greater than that of any subsequent period of life until extreme old age, the fact that the mortality of cow-fed is from five to six times as great as that of mother-fed babies, the limitations of pasteurization and other modes of modifying milk, the possibilities of the new modes of drying and evaporating, the fact that whereas the health of infants once depended on its parents it is now largely at the mercy of the milkman, the proposal of an infant science academy for mothers in every large city, which has its prototype in the Rochester and other milk stations, the increase of the sense of public responsibility for the health of school children, their academic diseases, the increased medical inspection wherever they congregate, the importance of light, seating, ventilation, the diffusion of medical inspection now existing in only about 80 cities outside of Massachusetts, where there are 32, and New York, which has 150 physicians who visit each public school daily, and Chicago with 100, and the new British bill making medical inspection a national system—all these are negative. Positive measures require instruction in health. Stiles has proposed a health week in the public schools; elsewhere a health day has been suggested. School cooking might have the double purpose of providing a good meal and at the same time training in hygiene. " Not a single cause of death " centers its onslaught between the ninth and twenty-third years. Of the eleven causes of the greatest mortality in the first year, chiefiy diarrhœa and enteritis, two focus on the second year, croup and meningitis; four on the third, including diphtheria and scarlet fever; one on the fifth, diseases of the lymphatics; tonsilitis and tetanus in the eighth; and then there is a jump to the twenty-third, where typhoid fever gets in its work, and the other sixty-nine causes of death follow. So that about every year is a convenient age for the attack of some disease save at those of adolescence; but during this critical age everything hangs in the balance.[1]

Very little advance was made in medicine from Galen to well into the nineteenth century, but since then progress has been amazing. Sociology only recently came into existence and *social pathology,* though in its infancy, promises to do as much as pathology has for medicine. Roy Smith Wallace collated for the Child Conference the results of interesting and often elaborate investigations in this field for child life, the condensed epitome of which illustrates the data wanted and now being gathered. New York City tenement life means that the average family of three children has three or four rooms, some 10 to 14 feet square, with no or at most 1½ windows per room, although 100,000 rooms in New York have none. In not a few such congested rooms lodgers are taken. Of 2,711 deaths of children under one year ⅔, or 1,792, occurred in families living in one room; 753 in families living in two rooms; 122 in families living in three rooms; and only 43 in families living in four rooms. Of 1,400 Edinburgh children of a given age, those who lived in one room were 47 inches tall; those in two rooms reached an average of 48.2 inches; those in three rooms, 48.6 inches; those in four rooms, 49.1 inches, with a weight of 52, 56, 58, and 60 pounds respectively. We realize how terrible tuberculosis is because in the whole country about 150,000 people of all ages die each year from it, but some 350,000 children under one year of age die each year. In New York State, 14,000 people in all die annually from tuberculosis. In New York City alone 1,600 babies under one year of age died in 1909. About ⅐ of all babies die before they are one year of age and ⅕ before they are five years of age. In the summer in New York about ½ the deaths are children under one. It has been figured that every death represents 28 illnesses. If so, we may multiply the deaths by 28, in order to find the number of sick and weakened who may survive. In Rochester, Dr. Goler reduced the deaths of babies in one summer 50 per cent, merely by insisting on clean milk. Before the weekly consultation methods in France there were 190 infant deaths for every 1,000 births. One year of this method reduced this number to 120, and after the second year of weekly consultations there were only 50 deaths per 1,000 births. The New York City health department for years with its maternity nursing could wipe out ½ the infant deaths in New York at a cost of $33 per baby. New York undertakers say that the average cost of burying a baby in New York is $50. Moral statistics are harder to gather. Ernest Poole, in 1901, found that of about 1,000 newsboys examined nearly 80 per cent had contracted venereal disease before the age of fifteen. This shows that the street does not afford the best moral environment. On the West Side, New York, from Fortieth to Fiftieth streets, between Tenth and Eleventh avenues, each child has a total available space of 7 by 8 feet; but must share it with adults; while in the more crowded lower side each child has only 3 by 5 feet to share with everybody else. Besides this, it is against the law to play any game on the streets. In July, 1909, of 717 arrests in the Manhattan Juvenile Court, 128 were "for throwing a ball," 177 "for playing a game called 'Cat,'" 81 were "for jumping on and off street cars," 29 "for shouting and making a noise," a total of 415 arrests for doing things that are not bad but good for children. New York has reduced the number of children in factories from 9,000 in 1901 to 2,000. Good progressive trades will not now take children under sixteen. Thus all jobs which those younger can get are unprogressive. Of 1,000 boys in New York, from the time they received their working papers, more than ⅓ changed their job 6 times in a year. The age from fourteen to sixteen is almost valueless industrially, so many now believe the age of required school attendance should be raised to sixteen. Of 1,800 children in one New York school, 700 admitted that they did some work regularly after school. This was usually work put out to be done at home by unlicensed firms under almost sweating conditions at that. More than ½ and probably ⅔ of the children are not enrolled in any Sunday-school, which means that 600,000 of them, enough to make a big unchurched city, are growing up with no religion. Those who are enrolled get half an hour a week of religious training.

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[1] Les Archives de Médecine des Enfants began in Paris in 1898 and has been represented ever since by a stately annual volume.

See Pfaundler and Schlossmann, " The Diseases of Children," tr. in 4 vols., 1908.

National Public Health. Govt. Printing Office, Washington, 1910. See also Zirkle Med. Inspection of Schools, Univ. of Colo., 1902.

Dr. C. W. Stiles, of hookworm fame, insists that as a nation "we Americans are *dirtier* than any other civilized nation with which I have come into close contact." He has investigated 2,271 white children from 16 different places and 5 different States. In his first series of observations, in one place, out of 161 country school children, 82 per cent were infected with the hookworm, an intestinal parasite that is liable to stunt physical and mental growth and if not itself kill, weaken its victims so that they succumb more easily to other diseases. This is a fair sample of his groups. Laboring capacity and military efficiency are reduced, woman's development is arrested, child-bearing made more dangerous and difficult, nursing inefficient. One local physician estimated the age of 151 pupils who were underdeveloped from one to eight years of age and their total apparent age was 113 below the actual age. As to causes why farm life, supposed to be so wholesome, is so often otherwise, outhouses and privies studied gave the answer. More than half of these children were living on farms that had no toilet conveniences of any kind, while most of the remainder had only the fly- and disease-breeding type, open in the back. In another of Dr. Stiles's records, of about 4,645, 55.2 per cent had no privies of any kind. In another series of 15 schools and orphanages, 39 per cent of the children were suspects. Churches, especially in the country, are often notoriously vile in this respect, and the soil pollution near the church is such as to make sheltered spots about it breeding places not only for hookworm disease but for typhoid fever, amœbic dysentery, and Cochin-China diarrhœa. This contamination rivals that of the Andersonville stockades and the remedy is all expressed in the two words, "Clean up."

From the passion for filth, as seen in maniacal *excrement-smearing,* etc., and from the tolerance of dirt by many savages, up to the very extreme of morbid horror of it, as seen in the incessant washing passion of mysophobiacs, is a very long scale which doubtless has psychic significance and perhaps a profound one. Many syphilitic men are scrupulously if not fastidiously neat and clean, as if the psyche would thereby atone for a sense of inner impurity. It has been said that women who grow gross near the climacteric from nonelimination are also prone to an analogous psychic tendency to save every rag and worn-out article and can destroy nothing that is used up, and find housecleaning very hard. Again, to soil one's body as with dust and ashes has long been a symbol of sin. Overcleanliness tends to keep us aloof from contact with things, and some hygienists are coming to fear that it may be carried too far and are telling us that the germ-killing phagocytes need exercise to keep them in good condition for their scavenger function of immunizing the body from disease. Those who have never been dirty do not know what cleanliness means and *vice versa,* and those wash best who have something to wash off. A girl always in immaculate white and a boy always in fresh new attire cannot be very hard up against facts or things, at least in most callings of life. Filth, of course, is a very different matter and will always be, for it means corruption and disease-breeding.

As to *the health of school children,* W. H. Allen[1] found that of 441 cities, 222 are not inspecting school children who have transmissible diseases. In 134 of them, no beginnings have been made for testing eye troubles; in 256, mouth-breathing is not noted; in 371, signs of predispositions of tuberculosis are not investigated, and in 336 there are no nurses or follow-up instructions for mothers to correct defects. No laws relating to physical defects have been passed by 36 of our States beyond the too-often ignored compulsory instruction in hygiene, and only 6 States have laws compelling these examinations. Only Indianapolis provides funds for the enforcement of its laws and for its application to parochial or private schools. There is now an immense gap between what is known and talked about and what is actually done. To-day adenoids, anæmia, etc., are made scapegoats for retardation and what we now need is to make defects into a useful index of home and school efficiency. In New York City, three out of four children have been found to need treatment, and the chasm between examining children and getting their defects removed "is conclusive argument for free meals, free surgical operations, free eyeglasses, free dental care." The great danger, says Dr. Allen, is that officials will shift responsibility to scapegoat defects, parents, colleagues, etc. Parents are ignorant and obstinate, and health boards usually call it a treatment when a child is sent to a family doctor or shown how to use a toothbrush. "Hating and concealing all truth about unsanitary buildings and part time and ineffective attendance is more obstructive than hating the looks of eyeglasses." "New York's evasion of the law compelling instruction in hygiene misrepresents the truth more than the health board's deficiency of treatment. To attribute retardation in large part to school defects, and then to refuse to do the obvious things that principals and teachers can do to protect and help these children and thus save millions spent each year upon physical defects, is as shortsighted, wasteful, and antisocial as for parents to neglect their children. It will be time to threaten parents with prison for refusing treatment for their children after school boards, superintendents and teachers have used their own information and opportunity. It is unfair to saddle blame for physical defects on tenements and cities, because country children have adenoids, bad eyes, and unclean, diseased teeth. Private schools for the rich need medical supervision quite as much as slum schools." There are other reasons for being healthy besides school promotion. The elements of a satisfactory law are: (1) provision for its own enforcement by withholding State money from schools that fail to live up to the minimum requirements or by providing a necessary tax; (2) private and parochial schools should be included; (3) examinations made annually; (4) nurses or physicians or both should instruct parents and effect the coöperation necessary to get children treated; (5) teachers, janitors, and buildings should be physically examined; (6) conditions and results should be currently, continuously, and uniformly reported until communities provide adequate facilities for treatment; (7) uniform questions should be submitted with respect to conditions found, steps taken and treatment secured by State and national superintendence of education. Dr. Allen says, "Our physically needy, if placed shoulder to shoulder, would make a solid line 4,260 miles long." "Physical defects do prevent children from seeing, hearing, and understanding, but so do crowded curricula, insufficient teaching, unsanitary buildings, overcrowded rooms and misinformed school administrators."

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[1] Civics and Health. Ginn & Co., Boston, 1909.

When you enter a very crowded meeting or school, the *smell* of the bad, close air can only be expressed, says Dr. W. P. Northrup, by a word "that begins with s and ends with k and isn't skunk." It used to be supposed that bad air was breath poison, but a new epoch in this work was created by Professor L. Paul, of Breslau (*Zeitschrift für Hygiene u. Infectionskrankheiten,* Leipzig, 1905), who educated himself to stay in a small air-tight cabinet four hours and a half at a temperature of 60° F. When the latter was raised to 70° F. the body temperature increased and he felt dull, with headache, vertigo, and other poison symptoms. When at this high temperature he merely put his head out of the cabinet and breathed the fresh air of the laboratory, his body remaining inside, it did him no good, and when a man stuck his head in the cabinet and breathed the bad air it did him no harm. Thus there is no breath poison. The symptoms are increased, and bodily temperature affected by moisture. After a long session in his cabinet the poison symptoms began and an electric fan was started; they disappeared, for the fanning disturbed the steam jacket investing his body and the moisture evaporated. Thus heat-storing (*Wärmestauung*) is the mischief maker. When a lady faints in a close room, her whole body should be fanned. "Put a cat's head in a football (the body outside it) and she will be none the worse for it. Put the whole cat in the football (head outside) and she will have a fit on account of heat-storing." This killed the victims of the old Calcutta Black Hole. So what we need to do is to unwarm the body.

We must always conserve energy, avoid friction, minimize waste, and to this end, the *right posture* of the body, which avoids undue strain, leaves the visceral organs to work with the least difficulty, favors circulation, etc., makes a great contribution, says Dr. J. R. Goldthwait. Correct posture is dependent to some extent also on clothing, for waist and trousers should not be supported by straps over the movable shoulder tips, which mean fatigue and stooping and the "trouser-pocket attitude," and perhaps curvature. "The straight-front corset is better than the flat-back corset, which throws the shoulders forward, flattens the stomach and chest, but no corset that disturbs the normal curves of the body should be used." "Posture is one of the biggest problems we have at the present time," for minimizing energy waste makes the greatest amount of it available, whether mental or spiritual.

When we consider all these agencies to get children for a season out of the city and its slums, which, so far as they are concerned, is the devil-made, into the God-made country, among the hills where they can climb, under the trees, in the wildwood and by the seashore, and realize that thus they are returning to the ancient home of the race, that we are restoring them to the paradise from which civilization has banished them, we cannot help asking why these agencies cannot be vastly increased until the urban purlieus are emptied of their juvenile population. In these days of cheap and rapid transportation the day may come sooner than we expect when not only vacations but schools may be ruralized through all seasons. Many older children now come to the city daily for school; why should not the tide turn and more and younger go out to nature each day? We already realize the advantages of the cottage system for small groups of dependent children, and the evils of big homes with their monotonous uniformity. Perhaps the evils of the present massive school barracks that in many a town tower above the homes and all other structures will give place to segregated smaller, cozier, and more homelike buildings in the most hygienic environments, and perhaps with free transportation, such as is already furnished in sparsely settled country districts. We may some time have a school tram and even train, with desks, and perhaps lunches and wayside demonstrations, which shall take children to a remote school city with baths, playgrounds, gymnasia, gardens, etc. Children deserve and would profit by all this, and nothing is too good for them. If doctors were not often afraid of drastic preventive medicine and hygiene, and if devices could be found by which they could make their livelihood by keeping people well rather than treating them after they were ill, this would help. The lessons learned from the best treatment of weakling children ought to be turned to account for well ones and diet, fresh air, exercise, etc., found good for weaklings would do not only as much but more good in raising the health level for well ones. The time will certainly come when all babies will be taken from the deadly city tenements into the open where life and health are found, and the present baleful slaughter of infants in July and August will cease. The big city school, especially the boarding school, and worst of all that for girls, if all signs fail not, will ultimately go the way of the scores of big homes for dependent and neglected children which are now so rapidly being vacated and sold because better ways of caring for these wards of the public are being found out. The present tide of suburbanization must extend farther afield, and the nature and needs of the children must lead. Dense city life is bad enough for adults, but it is infinitely worse for children, with their greater susceptibility to both physical and moral infections. Their very diseases have been and still are woefully neglected in our medical schools, and experts in this field are few and inadequately trained, while the methods of modern child hygiene and prevention are almost unknown to the older members of the profession. This seems now in a fair way to be remedied, and we may yet have doctors with really paidological training who know something of the larger pedagogy and of psychogenesis, which has now so much to teach them. There seems little doubt, therefore, that we stand at the threshold of an era of great transformation and improvement in this respect—1915 movements, city plans, such as the exhibit lately shown in Berlin, garden cities and ideals like that of Hellerau, near Dresden—all point this way.

In 1906, the English Education Act empowered local education authorities to supply meals to needy children at the expense of rate payers. From 1900–1907 there had been provision of meals for such children, but this was entirely carried out by voluntary agencies. In 1900–1901 the average weekly number of children fed was 18,857. In 1908–1909 this had increased to 39,632 and the average weekly number of meals was 166,766.[1]

Frankfort has a *Verein* for providing free breakfasts, which it did last year for nearly 3,000 poor children in 50 schools. It was organized and at first entirely supported by a committee of individuals and by several societies, but the city now contributes about $1,400 a year. The result of it is seen not only in the better health but in better work and more rapid progress in studies and increased joy of life.

The most complete hygienic exhibition was that of Germany made at the World's Fair Exhibiton, St. Louis, 1904, and its catalogue, prepared under the Imperial Board of Health of Berlin, is one of the most instructive documents in this field.

The Health Education League (Boston) diffuses information in the form of pamphlets and booklets. Health tracts are given away where necessary. Each member acts as a distributing agent.

Free public baths have been established in recent years in many cities to encourage cleanliness on the part of the poorer people and especially the young. Children are often given free towels, soap, and bathing suits. Some cities, like Boston, have a highly developed system with floating baths, beaches, and permanent winter bathing and swimming pools.

Some cities have dispensaries open day and night, from which physicians and nurses are sent with grips containing sterile and other supplies. That of Cleveland cared for 450 confinement cases with only one death in 1908. In the out-patient obstetric service of the Johns Hopkins Hospital, in the same year, over 500 women unable to pay were delivered at their homes and a fourth-year student sent daily for five days and on the seventh and ninth again. The constant service of three nurses is required.

The Junior League of the New York Bureau for Municipal Research has collected data from school and health boards of 360 cities in 42 States with a total enrollment of over 4,000,000 children. Of these, 149 cities make no attempt to discover contagious diseases, 211 inspect, 234 examine for defective vision, 171 for breathing troubles, 119 for bad teeth, and 107 have no examination of any kind. Finding defects and disease is no protection unless coördinated with an effective following-up system and efficient medical service. In 58 cities, nurses take children to dispensaries or instruct parents; 101 send out cards of instruction; 119 cities are discovering which children need attention to their teeth. The bureau urges that every teacher be given time to make a list of children that she thinks need attention.

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[1] Report of the Ed. Committee of the L. C. C. for 1908–1909. Part II. P. S. King & Son, London, 1910.

District *visiting* or *instructive nursing* began in 1821, when T. Fliedner took charge of a small parish at Kaiserwurt on the Rhine. His church failed and in his travels to collect money for it, he learned of a new need and opened an order of deaconess nurses, who went from house to house relieving suffering. At his death, in 1866, there were over one hundred "mother homes" for these nurses, all the way from Jerusalem to the American prairies. His last work was to establish a Home of Evening Rest for these aged visitors. Florence Nightingale, a delicate English girl, in great contrast to the sturdy German women, was one of the early applicants for this Order, but was first refused; but finally was told, "If you want to come, scrub that floor." She did so, learned, and became the first English-speaking nurse, and in 1854 with thirty-eight volunteer women went to the Crimea and nursed for two years, traveling home under an assumed name to avoid ovation. The Queen gave her a gold medal, the nation £50,000, with which she founded the first training school for nurses. A philanthropist established the system in Liverpool, which spread rapidly. When the English women gave the Queen $350,000 as a Jubilee gift, she founded the Victorian Institute for Nurses. In 1897, a smaller institution was established in Canada. At first, hospital training only was given, but this was found insufficient, and Dr. A. Worcester opened the Waltham Training School in 1885, where, after six months' probation, candidates who really had a calling here were given eight courses in nursing, viz.: infants; children; women; insane; neurotic and enfeebled; eye, ear, and throat troubles; medical and surgical nursing. The first association was in Boston in 1886. Los Angeles led in supporting the district nurse by the city. The work has extended to the rural districts. In 1892, Lillian Wald began, unaided, her independent work which culminated in the Nurses' Settlement on Henry Street. On this system nurses lived, not in expensive homes, but in tenements in the needy neighborhoods and gradually won the favor of the community, of physicians, etc. The Henry Street Home is equipped with many well-stocked cupboards with all kinds of ointments, disinfectants, bandages, blanks, ice-bags, rubber goods, clothing, etc., which can be loaned and even given away. This work relieves overcrowded hospitals, and it is now plain that very many patients are best treated in their own homes. The visiting nurse usually makes anywhere from half a dozen to a score of visits daily. Sometimes several towns combine to employ one who can be always ready, and in her spare time she may take private cases. Families able to pay do so. A true, tactful nurse clears up, disinfects, interests mothers, children, fathers, restores hygienic conditions not only in the house but in the yard, provides out-of-door sleeping facilities for those who need it, is familiar with other agencies and turns them on in case of need; so that there is almost no end to the assistance she may render. She often visits playgrounds where there may be need of her services. Few kinds of training are so helpful in bringing out the best that is in young women or in doing good generally. In most homes they live under rules, perhaps going with the doctor in the morning to visit the cases first and later in revisitation, rarely spending the night. Their ministration begins not during but only after confinement, but they deal with children too young to be moved and with chronic cases and old people, whom hospitals do not provide for. One writer says, "I do not think there is any human being who may be as useful as a district nurse if she is helpful without interfering." To be successful they must have native qualities of tact, sympathy, insight, tender love of the sick and suffering, and be humane if not religious. They must make the advent of the trained nurse desired and not dreaded. While they do much work for children, it is essential that this side of their work should be emphasized and in point of fact it generally is, although there is little *special* provision made for this branch of the service.

Visiting nurses originated in England, in 1859, with Mr. Rathbone, who desired to utilize trained nurses in visiting the homes of the sick poor. In 1877, the women of the New York missions sent out the first trained nurse. Then came the Ethical Culture Society. In 1890, there were but 21 associations in the United States, most of which employed but one nurse. In August, 1909, there were 566 with a staff of 1,413. Since the first organized society for visiting nurses was established in 1903 by Miss Wald under the New York Board of Health, the work has grown until now only 11 States lack these associations. In the first half of 1909, 72 new associations were started. Twenty-nine cities have special tuberculosis nurses and 50 cities in 19 states have school nurses, employed by the board of education or by the board of health, at a salary varying from $30 to $80 a month. The work of these nurses is closely affiliated with charity organization societies. "Perhaps," says Dr. Theodate Smith, "there is no field which offers wider opportunity for social service. The nurse comes into contact and intimate relations with families in a way possible to no other visitor." She can coöperate with the school visitor and if she had more training in social problems, her work could be made even more valuable.

The *insurance of children* and industrial insurance is not a new theme. In England, it goes back to the fifties of the last century, since which time millions of children of the working classes have been insured in burial societies or industrial insurance companies. The cry that child murder to obtain burial or insurance money prevails has been repeatedly met by investigations which indicate that this evil is almost negligible, even for illegitimate children, and that the high death rate in this latter group has nothing to do with insurance. Those parents who insure are not the thriftless or the criminal. In England, it has been urged that infant life insurance was necessary unless infants are to be buried at public expense. Benefits are not yet common for those who die under three months of age and insurance does not lessen the care, or work to the detriment of the child. Every State in this country, save one, now permits child insurance and those insured probably live quite as long as others. The New York law permits anyone liable to the support of a child to the age of one year and upward to take out a policy, but specifies the maximum amount payable for each age, beginning with $30 from one to two years of age, and amounting to $200 between eight and nine. Dr. Franckel states that no case can be authenticated where an American parent has committed murder to obtain insurance. The millions of policies on the lives of children to-day represent more than the solicitation of an agent. Statistics show that pauper burials have decreased in numbers as a result, especially for workmen whose children in less proportions than ever before now go to the potter's field. Nor does insurance tend to unreasonable outlay for funerals to which some races, perhaps particularly the Italians and others, are so prone by a peculiar code or tradition of their race. The Metropolitan Life Insurance Company of New York proposed to all undertakers a fixed price with standard specifications as to casket, material, etc., saying that they would announce the address of those willing to offer these rates to their policy holders. Most companies replied that this would be directly opposed to the undertakers' code of ethics relating to advertising goods and prices, although a few assented. The agents of companies that collect weekly premiums can do great good. Although their relations with their clients are primarily of business, they can do a great educational work. The insurance idea is so effective a thrift agency that in many countries, especially Germany, it is now compulsory, often for employers against sickness, old age, and accidents, as well as death. Agents can make many suggestions regarding sanitation, the rearing of children, the mother's care for her child, and can do a good deal of inspection, especially before the insurance policy is issued, and this would make parents more careful of the health of their children. It is greatly for the interests of these companies that children should be well and should live long, so the weekly visitor distributes literature and one company publishes a periodical, largely a children's magazine, attractively illustrating the principles of health and treating of plays and games, modes of spending summer, dangers of flies, the care of a baby, clothing of children, the Fourth of July and its effects, physical defects, etc. One of the best of these pamphlets is entitled "The War Against Consumption," and is printed in ten languages, telling how a shack can be built on a tenement roof, how to use a porch, an open window, etc., and experiments are now made with visiting nurses. For May, 1909, a total of 26,326 visits was made. One third of the cases treated by these nurses have been children. In Worcester, from March 10th to May

31st, 1,269 visits were made and not a death reported. These activities are probably only the beginning.[1]

Eugenics.—In France, Bouchard, in a recent discourse before the Academy of Sciences, believes that the lessening birth rate in France can be remedied, and Dr. Lannelongue has introduced into the Senate a bill to stimulate births by bounties to parents of large families of $40 a year for every child beyond three, although his bill takes no account of the quality of the children. It would, however, insist upon a wife and family as a qualification for all promotion in the civil service. It makes every unmarried man at the age of twenty-nine liable to an extra military service till he marries or qualifies for the reserve. No municipal or state employee is to be retained if unmarried when he reaches twenty-five years of age. This bill, of course, would touch the civil service of any country very vitally, and many of the greatest statesmen have been bachelors. In Munich, an international society of race hygiene has been founded, with A. Ploetz as its secretary. It seeks to promote social racial hygiene by the collection of facts illustrating the laws of heredity and variation in man and by diffusing this knowledge. It would inspire its members to improve their own moral and intellectual deficiency and to submit to a medical examination before marrying. Any proven unfit would abstain from it, or at least from parenthood. Ploetz points out the larger number of stoop-shouldered, flabby, anæmic, undervitalized young people who are feeble and reckless and leave children with the same faults, and would have a society to find what kind of defects are most transmissible, why the able parents infrequently have inferior children, and in general how to increase good and eliminate bad stocks. The spirit of this society is that of the chivalry of the middle ages which refuses to squander strength, which has no contempt for lower classes, and which will break the barriers of caste because the value of the lower strata that produce good children will be increased, and that of the so-called higher classes that produce bad ones will be diminished. Schöneberg, a suburb of Berlin, has already established a system of bounties for its employees who are fathers of large families. They are generally the most efficient workers, more steady and healthful. Heads of families of three children, in addition to their regular wages, will receive an extra monthly pay of $2.50; for four children, $3.25; for five children, $3.75; for six children, $4.24; for seven children, $5; these bounties to be paid to fathers of children who are under sixteen and who are dependent upon them. In England, Dr. Duncan has made a eugenic proposition that would place all mental defectives, including lunatics, under one general authority. A special hearing before a larger committee of members of Parliament shows that the British Government has not yet awakened to this situation.[1] In this country the American Breeders' Association, December, 1909, organized a committee on eugenics, of which David Starr Jordan is the president, with three duties, investigation, education, legislation. The first aim is to explore still further the general doctrine of heredity, to find the law of the presence and absence of determiners of characteristics in the offspring, something of which is already known concerning pigmentation, albinism, brachy- and polydactylism, diabetes, deaf-muteness, idiocy, Huntington's chorea, susceptibility to various diseases, such as tuberculosis, colds, and catarrhs, syphilis, which has a very simple test, etc.[2] A child or a state that springs from a worm-eaten stock is built on a bad plan and easily succumbs. Never did a civilization decay without having violated eugenic principles, and this is always the biological secret of their decline. Only the pattern preformed in heredity can be worked out in maturity with greatest success. Those at the top of society furnish too small a proportion of the parenthood. Ability dies because it is not being born, and proletarianization of a higher race thus occurs. The weaker and poorer stocks tend to be preserved, and our hygiene and medicine tend to keep alive those with weak lungs, wills, minds, eyes, ears, muscles, and our charities supply crutches for every sort of infirmity and help underlings to corrupt the stream of heredity and prevent races from being well weeded at the bottom. Perhaps labor-saving machines have something to do, but in many ways our many aristocracies are being drained, for we cherish the weeds and neglect the good plants. It costs far more to-day to rear a defective, subnormal, diseased, than it does a healthy child. Eugenics seeks to stay these manifold and sinister ravages and to hearten people to serious care for generations to improve the stock. The State of Washington is perhaps now the most advanced in our country, and requires a medical certificate "on the part of both contracting parties, given by a certified physician after due examination, certifying that they are sound and well in both body and mind and free from serious taints in their heredity. No marriage license can be granted or ceremony performed without the production of such a certificate. Severe penalties are imposed upon both civil and ecclesiastical officials for violating these provisions. Persons thus shut out from marriage are those affected with tuberculosis, alcoholism, epilepsy, insanity, deaf-mutism, blindness, and other serious diseases and defects which affect posterity." Can this law be enforced at the very gateway of marriage? Of course public opinion must first be shaped and custom has its effects. Segregation of the unfit, and especially sterilization of criminals and defectives of all sorts, are more drastic and more rare. Some of these, however, are entirely practical. If we were to abolish all our charities for a season and leave the weak to their fate, which is nature's way of racial purification, something would be accomplished. One of the most suggestive of all Galton's propositions is that eugenics be made a broad religion of humanity which looks not merely to the salvation of the individual, but to the ultimate good of all future human kind. It is an inspiring ideal, but requires a degree of altruism and foresight that is rare. Moreover, mankind is moved in these matters by feeling, which is always shortsighted, and in this respect tends to be selfish.[1]

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[1] Since this chapter was in proof, I have received B. G. Mangold's Child Problems, which treats of a few of the topics of this chapter from an entirely American standpoint. Macmillan, N. Y., 1910, 381 p.

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[1] See Eugenics Review, July, 1910.

[2] See C. B. Davenport, Eugenics, New York, 1910.

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[1] See Practical Eugenics, by J. F. Bobbit. Proceedings of the Child Conference for Research and Welfare, 1909, Clark University, pp. 73 *et seq.* Also Eugenic Education for Women and Girls, by Alice Ravenhill. Lond., 1908, 24 p. The Training of the Human Plant, by Luther Burbank. N. Y., 1907, 99 p. Euthenics, the science of controllable environment, by Ellen H. Richards. Boston, 1910,

In the matter of improving the race, says W. A. McKeever, we are in the stage of guess, hearsay, and tradition, and resist improvement. Professor Williston, of Chicago, a paleontologist, believes that man is a comparatively young animal as indicated by his high fertility, his range of interbreeding, his ready adaptability and plasticity, and from the fact that he is the only animal increasing very rapidly who can transform his environment. His brain structure is full of undeveloped potentialities. Unfortunately we have not any special strains or breeds of human stock that stand out as superior from generation to generation, like some breeds of animals, but we are constantly looking to the masses, the middle or lower classes for real virility, leadership, and recuperation of the race, and not to orders of nobility. Pearson thinks that breeding is a ten times more important factor in race culture than training, but his Oxford graduates had certainly very superior environment as well as ancestry and it may be that an old and aristocratic country is not open-minded on the subject of eugenics. Our ideas of personal liberty have interfered with those of team-work, which are needed here. How shall we combine the splendid stimulus of the pioneer life of the advance guard who first carried civilization West across this country, with the easy-going daily life of the child to-day, and give each a complete awakening for its latent aptitudes? Or does this tend to interfere with the power to transmit life?

Boys' clubs usually meet local needs and therefore differ greatly in their activities, but are designed to keep boys off the street and away from temptation. They provide entertainment, instruction, fellowship. There is no national organization, but the eastern United States has a federation of 130 of the largest or massed clubs, varying from 100 to 1,000 in membership. The federation is merely a headquarters for information, consultation, and advice, and it often furnishes superintendents. Some clubs are almost purely recreative,

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162 p. Essays in Eugenics, by Sir Francis Galton. Lond., 1909, 109 p. Eugenics and Unemployment, by C. D. Whetham. Camb., 1910, 20 p. Eugenik, Lebenshaltung und Auslese, von Wilhelm Schallmayer. Zeitschrift für Socialwissenschaft. Leipzig. May, 1908, Jahrg. xl, Heft 5, pp. 267–77, 338–48, 458–89. Parenthood and Race Culture, by Caleb Williams Saleeby. Lond., 1909, 331 p. Lebensdauer der Eltern und Kindersterblichkeit, von Alfred Ploetz, Arch. f. Rassen u. Gesell. Biologie, 1909, vol. 6, pp. 33–43. Aussterbende Familien, von Dr. Fr. von den Velden. Arch. f. Rassen u. Gesell. Biologie, 1909, vol. 6, pp. 340–350. Der Einfluss von Fruchtbarkeit, Sterblichkeit und Konstitutionskraft auf den Heeresersatz nach Wohndichtigkeit, sozialer Stellung und Beruf, von Dr. Walter Claassen. Arch. f. Rassen u. Gesell. Biologie, 1909, vol. 6, pp. 483–402. Der Rückgang der Stilltätigkeit der Frauen und seine Ursachen auf Grund der neuesten amtlichen Statistik, von Dr. Walter Claassen. Arch. f. Rassen u. Gesell. Biologie, 1909, vol. 6, pp. 798–802. Zur Frage der Fruchtfähigkeit und der Mutterschaft, von Dr. Grassl. Arch. f. Rassen u. Gesellschafts-Biologie, 1908, vol. 5, pp. 498–525.

with basket ball, glee clubs, various games, while others are largely industrial, with classes in cobbling, weaving, chair-caning, basketry, drawing, etc. The bath, especially the shower bath, is very popular and the swimming bath has been in several cases abandoned. In some cases social dancing is provided. On the economic side, stamp and penny savings are organized. Dues usually range from five to twenty-five cents a month, with perhaps a fee for special classes, cost of material, etc. Most clubs are only in the evening or perhaps from six to ten. Some, however, have also hours from four to six. As in most clubs boys are not received after fourteen, there is little need of opening during school hours and the morning hours are, at least, not busy ones. The superintendent is often a probation officer, a combination that has many advantages.[1]

About 78 per cent of all spontaneously formed boys' organizations, says W. B. Forbush, are for out-of-door activity, with play central, and next to play comes friendship. Sheldon's study showed that 80 per cent of all boys had some time belonged to a club organized by boys. Those formed by adults are either mass clubs, e. g., for newsboys and street urchins or similar clubs in social settlements and churches. The former is now coming to the fore at the expense of the latter. Most are a kind of school and many a religious boys' club has gone stale because it was too stiff to play or too formal for friendship. The level of expression of these instincts has to be "as high at least as the common denominator of the gang." Nature study, Thompson Seton's Indian ideal, Baden Powell's scouting parties, Y. M. C. A. camps, boys' brigades, all appeal to a dawning sense of law and order. Winter clubs tend more to crystallize than those in the summer that get out doors. Forbush has catalogued 150 large clubs for street boys, reaching about 100,000 members, and the Y. M. C. A. reaches twice as many. Two hundred social settlements doubtless reach 100 boys apiece and church organizations doubtless reach one out of five of their Sunday-school boys. There are at least 25 nationally organized movements for the uplift of boys. The recognition of the educational value of play on the part of adults has made all these organizations much more effective and playwork is a good link with the school. Moreover, vocations that have been entered upon with no more deliberation than the choice of a wife are being more wisely chosen. Adults cannot long associate with a group of boys without desiring to give them some uplift. The mere joy of association is great but it palls unless there is a purpose. No one ever does a boy as much harm or good as he intends, for youth has a way of developing independently of the laying-on of adult hands. Yet the adult leader is very important, although most grown-ups have lost the dialect of childhood because they do not understand the boy that is within them. Forbush says that educated as he was, like many boys, "to be a perfect lady," he found when he grew up that his desire to serve boys was pathetically thwarted by inability to find real points of contact. These can often be only slowly furnished by having run, swum, eaten, slept, played ball, built campfires together, and having a nickname, which really admits to the boy tribe. Ethical teaching has its perils and may be pernicious. Many adults try to almost burglarize the soul of the child. Even the adolescent is not yet an individual but only a portion of the group. Boys seem to act *en masse* even in the highest as well as the lowest things. A revivalist, who told a group of boys that if they wanted to be saved they must meet afterwards in a certain corner of the room, found them all piled up there because they acted together. City boys are probably oversocialized before they are fully individualized. In all groups there are key boys and if they are high each group is leveled up. Of course boys need the silent attrition of one against another. Boy nature is generally wholesome and most of them are normally a "pretty good sort." When you try to help a boy you generally have him on your side. There is much oversophistication. It really takes about a week in a tent to break the crust off a boy. He is often old beyond his time in things that he has seen, but very backward in other things. Boys are often limp and helpless alone, with little purpose or sense, but they always have one vital thing, viz., enthusiasm.

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[1] The Boy-Savers' Guide, by Rev. George E. Quin, S. J. N. Y. 1908, 389 p. Working Lads' Clubs, by Charles E. B. Russell and Lilian M. Rigby. Lond., 1908, 445 p. The Boys' Round Table, by William Byron Forbush and Frank Lincoln Masseck, N. Y., 1908, 188 p.

The Church Lads' Brigade cultivates comradeship, out-of-door life, horror of cadging or sponging, thrift, good manners, and perseverance. Its motto is "Fight the good fight." It cultivates square but not individual competition and has an incorporated society.

The Boys' Brigade (1883) is an interdenominational English church society enlisting some 110,000 boys. It is distinctly "to advance Christ's kingdom among boys and to promote obedience, reverence, discipline, and Christian manliness." It is for boys from twelve to seventeen and uses military organization, drill, uniform, etc., as a means to religious ends. It has considerable literature, its own hymns, and book of tactics, publishes a gazette, has daily Bible readings, and a code in which the military aspects of Christianity are strongly emphasized. In America, the brigade has advanced rapidly for twenty-five years. The oath it requires is to avoid liquor and vile language and to help Christ's kingdom. The chapters have a national organization here which edits an interesting monthly journal, *The American Brigadier.* There is also a well-developed Jewish Lads' Brigade, with rifle practice, camps, etc.

The Boy Scouts was started by Baden-Powell in England for boys from twelve to eighteen who were growing up with no knowledge or occupation. In 2½ years, 400,000 boy scouts were enrolled. It has been developed in this country largely under the influence of Thompson Seton. Prominent as are its military features, its purpose is not directly to make soldiers, but to cultivate the soldierly virtues of discipline, obedience, neatness, and order. Scoutcraft consists of first aid, life-saving, tracking, signaling, cycling, nature study—all in games and team play. The scout oath is on honor to do duty to God and country, to help others always and to obey scout laws. There is a salute with three fingers up in token of this trinal oath. There are three grades: first, the tenderfoot, who must know the laws, signs, and salutes, and something about the flag and knots. To enter the second grade, he must know bandaging, the Morse alphabet, go a mile in twelve minutes, make a fire using not more than two matches, do a cooking stunt, have a quarter in the bank, etc. To be a first-class scout, he must swim 50 yards, row 7 miles, describe a series of emergencies, read a map, use an axe, judge size, distance, etc. He must do some one a good turn each day, be cheerful, kind to animals, obey orders promptly, and save money. The punishment for swearing or foul words is a mug of cold water poured down the offender's sleeve. The manual is a book of 200 pages and there is a good deal to learn in woodcraft, chivalry, patroling, camping, etc. It is a purely adolescent society.[1]

There is no general federation of girls' clubs. They have not been as successful, nor are they as typical among girls as boys. The latter can traverse the city streets evenings without the dangers to which girls are exposed. It has been found that the knowledge of their assemblages at times adds to danger. Moreover, boys on probation can mingle with other boys without suffering socially or being exposed to extra temptations or dangers and this is not true of girls on probation. The most successful girls' clubs have been in connection with churches or they are groups held together by some strong personality and with some specific purpose, vocational, educational, or economic. Many of them are devoted to household interests, or are friendly societies, with recreation a feature. The adolescent girl is profoundly influenced by a wise leader. Hull House has ten clubs for girls from ten to sixteen, those for younger girls being mainly afternoon clubs with a membership of rarely over 20. The need of a meeting place for young men and women under favorable social conditions is recognized profoundly by settlement workers. Lunch clubs for working girls have been beneficial in Chicago, if located where the need is greatest. Some clubs are for housekeeping, the Jane Club of Chicago being one of the oldest (1891). It is self-governing, with weekly dues of three dollars, where rent, service, food, and heat are provided, and it now has a house built for itself accommodating 30 members.

The Recreative Evening School Association (England) is to encourage boys and girls who have left the elementary schools to continue their education, which seeks to be especially recreative and practical. Its idea is to give the millions of young people under twenty-one the careful training that will save them from wrecking their lives. It was stimulated in Scotland by the act of 1908, imposing on school boards the duty of providing continuation classes for young people over fourteen. If the half-time system is abolished in January, 1911, the work of this society will have a new motive and function. That educational care during the adolescent years of from fourteen to seventeen is needed is shown by the fact that yearly 170,000 children leave school or are not attending any form of week-day class. This society recommends that attendance at these continuation schools up to the age of seventeen be compulsory.

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[1] See my "Adolescence," N. Y., D. Appleton & Co., 1907. Vol. ii., Chap. xv. Social Instincts and Institutions, pp. 363–449.

The vacation school, like most institutions, is the development of an idea, probably as yet only in a midway stage, which had its inception in 1844 in London, through the society which gave school children a day's outing in the country. In 1850 this extended its scope to giving children a two weeks' outing in country cottage homes. In 1856 a marine sanitarium for delicate children was established by Dr. Barellai, of Florence, which was followed by a similar institution at Milan. In the United States the fresh air work, which began, like the English, by giving the children a day in the country, was started in 1872. In 1875, the Wohltätige Schulverein in Hamburg furnished outings in country homes for children too poor to otherwise obtain them. The first real *Ferienkolonie* was founded by Dr. Bion at Zurich. This has served as the model throughout the German Empire and to some extent in other European countries. Since the number of children must be limited, the choice is made dependent upon the bodily condition, poverty, and environment of the child, the most needy being chosen for a three or four weeks' vacation. These *Ferienkolonien* have less the character of a school than of an educational home, the fundamental idea being to give the children a higher outlook in social and family relations and to bring them closer in contact with nature to furnish refreshment for both body and mind. The French *colonies de vacance*, which have existed since 1883 in connection with the Paris schools and have gradually extended to other parts of France, have in general followed Bion's model but have more the character of a regular school, the children often keeping notebooks and writing compositions in connection with their nature study. In both France and Germany these colonies are not confined to the regular vacation periods but delicate pupils are sent to them during term times.[1] France has a Union Nationale des Colonies de Vacances (1907) [2] and in 1906 the Congres International des

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[1] Walter Bion: Die Ferienkolonien und verwandte Bestrebungen auf dem Gebiete der Kinder-Gesundheitspflege. Züricher Ferienkolonien, 1901.—Emmanuel Basso: Les colonies de vacances; historique, fonction nement resultats. Lyon, Schneider, 1906.—Louis Bories: Colonies de vacances et carnet sanitaire scolaire. Lyon, Schneider, 1905.—Alphonse Desdouity: Les Colonies de vacances. Etude d'hygiène sociale. Paris Bonvalot-Jouve, 1906.

[2] E. Plantet et A. Delpy. Colonies de Vacance et Œuvres du Grand Air en France et à l'Etranger. Hachette et Cie. Paris, 1910. 510 p.

Œuvres was formed and held its first meeting at Bordeaux in April of that year.

In selecting children for these colonies, the earnings of the parents, number of children and location of their dwelling, as well as hereditary conditions and the individual need of the child, are taken into consideration. Children suffering from any contagious disease or recovering from it are excluded, as well as those afflicted with incontinence of urine. The moral character of the child is also taken into consideration. The vicious and perverted are excluded. lest, especially in the boarding colonies, the good effects of the out-of-door life should be more than counterbalanced by moral corruption, since even one bad child may infect the whole colony. In many of these colonies boys and girls are sent to different localities, particularly between the ages of twelve and fourteen, though some of the colonies take both sexes.

The movement for vacation schools, although suggested as early as 1872, did not take form until, in 1885, Mrs. Quincy Shaw opened the North Bennett Street School during the mornings of six weeks in July and August for 500 children from three to eighteen. The Dennison House opened the Tyler Street Vacation School in July, 1895, the School Committee granting the use of the building. The best organized movement in this direction was begun in New York by The Association for the Improvement of the Poor in 1894 on the plan of W. W. Locke, with the use of four school buildings. More children applied than could be admitted. The age was from five to fifteen and there were no text-books. A church in Cleveland, in 1897, established a summer sewing class, and in Brooklyn, under J. G. Brookes, the same year, a vacation school was opened, and in Cambridge the same, and in Philadelphia the next year. The movement began under most favorable auspices in Chicago in 1896 and since then it has spread widely. The character of these schools and their work varies a great deal. It is felt that the long vacation is hard and even dangerous for boys and girls who, especially in the city, are left without occupation, and that the schoolyards and buildings should be utilized. Nature study, domestic arts, manual training, gymnastics, play, visits to the country, etc., are all utilized and there has generally been great freedom for localities and even schools to work out what seemed best to each. The idea is for the school to take up the movement.

It is but a step from the vacation colonies and day sanitariums to the idea of the open-air school, first established at Charlottenburg.

The *open-air school* of Charlottenburg, a suburb of Berlin (1904), was for backward children about to be removed to special classes, but who had been found debilitated by various incipient diseases, most often tuberculous and anæmic. Here they reached school just before eight, receiving soup, bread, and butter. Classes were for half an hour with an interval of five minutes, but never for more than two consecutive hours. At ten, all received milk and more bread and butter, when they played or read till half past twelve and after dinner slept for two hours. At three, there were more classes; at four, milk, rye bread and jam, and the rest of the afternoon there was informal instruction at play, and at seven, after another meal, they returned home. Here, 107 children gained on the average half a pound each week. Not only were the physical improvements great, but the children did not fall behind in their studies, although giving only half the usual time to them, and most had gained a little when they returned to the regular classes.

The London County Council, after an admirable report of this system, opened a similar school at Bostall Wood in 1907, choosing weakly children who had been unable to keep up, continuing the experiment for thirteen weeks, during which here, too, some gained half a pound a week, falling back a little always when they stayed out. The children were simply given pure air, good food, and commonsense school work. Bradford, England, has done excellent work.

The first open-air school in this country was opened in June, 1908, in Providence, where a schoolroom was remodeled, leaving one entire side open to the air and pre-tubercular cases given precedence. Here the children sat in warm bags, perhaps with soapstones at their feet, and hemoglobin tests showed remarkable improvement. Six months later Boston followed and in December, 1908, New York, which opened its first school on an old ferryboat and on the petition of children themselves, who were convalescing in a hospital. The Board of Education at once responded. Roofs have since been pressed into service. Chicago followed in 1909 and these classes were the only ones which had no Christmas vacation, for the children refused to take it. Twenty New York schoolrooms are modified for this treatment. The cost is usually met by the Board of Education, but the expense for food and clothing by hospitals and tuberculosis and other societies. In foreign cities, Ayres tells us, the food cost sixteen cents per day for four meals. In this country, two meals cost about twenty cents. Children in need of this treatment are estimated to be from three to five per cent of the entire school population. One thousand children of school age die of tuberculosis each year in New York City who, on the average, have had about six years of schooling, for which the city paid $250. This means a quarter of a million dollars to educate those who die before growing up, and this would do great work for these children. This movement is a step toward a system where the child will not have to be either feeble-minded, or delinquent, or truant, or tuberculous in order to enjoy the best and fullest sort of educational opportunity."[1]

Mr. Joseph Lee tells how a Boston teacher put eighteen feeble children out of doors one spring, sold them a little lunch, and found that they had gained 4½ pounds apiece. A committee was appointed, which recommended that it would be a good plan to open all the windows in some schools if the children were anæmic, undersized, had glandular enlargements, or were convalescent, and it was found there were 5,000 of these in Boston schools. These the physicians examined. The children were rounded up and in five rooms the windows were kept open practically all the time, and less on the east side, with 44 children in each room. Bags, costing one dollar, were made for them and tied around their necks. It was found that in the fire drill they could get out of them in 45 seconds. Then came a lunch prepared by the domestic department, costing one and two cents, so placed that it did not interfere with other meals, and it was found that underfeeding came less from poverty than from not knowing or caring. All these children were weighed and measured and this is rather inspiring, for any kind of curve that tends to go up a little tends to push other things up. Then there was a school of 20 in Franklin Park with 6 open-air rooms for ventilation, which were kept open at night instead of corking the air up for the children next morning, and the temperature was at 67° F. Careful experiments showed that the air as ordinarily heated was a little drier than that of the Sahara, so the air was sprayed until the windows were cloudy, and it was found that the temperature could be reduced to 64° if the air was kept moist enough. A trick to do this is to have flowers, which people will water. Another experiment that grew out of this was with the children in the lower grade, who were given two hours out of five on the sand heap, with blocks, toys, etc., instead of being held to school five hours, and the results of this appeared in the curve.

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[1] Outdoor Schools, by Elnora Whitman Curtis. Ped. Sem., June, 1909. Vol. 16, pp. 169–194.

In France and the United States the outdoor school[1] has developed under the auspices of the societies for the prevention of tuberculosis, although in the German schools, children with open tuberculosis have been strictly excluded. At the present time, France has but one open-air school, opened in 1907 at Lyons. Dr. Grancher, in his scheme for the protection of children against tuberculosis, proposed two classes for different forms of treatment,[1] those not yet infected who could be safely sent into country homes and attend the regular village schools; and second, children in the first or second stages of infection, whom he thought should be placed in colonies or schools where they could have continuous supervision at night as well as in the daytime. Although this second part of his plan, which was proposed in 1904, was not carried out in connection with the Paris work, the Mayor of Lyons, appreciating its value in a crowded manufacturing city like Lyons, in 1907 succeeded in opening a school according to Dr. Grancher's idea. The building chosen for the purpose had formerly been the mayor's palace, situated in the suburbs, and was surrounded with extensive parks and gardens. Its large rooms, with many windows, were easily converted into dining-room, dormitories, and shelter for rainy weather. The first year 35 children were cared for at this school, the instruction and general régime being practically the same as at Charlottenburg, but with the additional care at night lest the gain of the day should be lost by spending the night in the narrow and crowded alleys of Lyons. The school term was from the first of May until the first of August. The second year 50 children were provided for and last year 100, but in two sections, the first detachment being at the school from the first of May until the middle of July, and the second from the middle of July until the end of September. Thus far only boys have been selected for the benefits of this school, as it seemed to simplify the experiment they were undertaking to limit it to one sex. The benefit of even the three months' residence has proven so great that the permanency of the school is assured. Since 1908 one wing of one of the buildings has been devoted to an experiment on the effect of the open-air treatment on babies taken from the crèches. Thirty-two babies, varying in age from a few months to three years, were selected from the weaklings of the crèches, care being exercised, of course, to exclude any having contagious diseases. On the whole the results of this treatment were very satisfactory. Most of the children gained perceptibly in health and strength.[1]

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[1] Open-air Schools, by L. P. Ayres, N. Y., 1910, 171 p.

The Carnegie Library, says F. J. Olcott, found that systematic *story-telling,* which began in 1899, brought a very marked change in children's reading. Different topics were chosen for the Friday afternoons of each year, large numbers of duplicate books purchased, and a course planned to extend over eight years, at the end of which the cycle should be repeated. Boys and girls over ten and twelve, are in separate groups. Benches without backs are constructed especially for this hour and every tale is carefully prepared beforehand. All pupils in the library training school must take a course in story-telling, with weekly practice. Declamation and elocution are tabooed. The idea is to enrich the child's imagination, stock its mind with allusions, develop concentration, preform its ideas of right and wrong, and these, though often thought by-products, are essentials. Helen Glenn insists that story-telling should be extended to all institutions, which she thinks do not take pains enough to give the children a good time. They are dully obedient and apathetic. To make her class a prized privilege, one story-teller began with dancing and games. It was hard to make the girls even romp well, and they had no idea of team-work. From this, pantomimes and tableaux were developed, and these delinquent girls finally showed considerable talent in debate on very practical questions. The animal stories fell flat, for city girls had never owned an animal, but fairy tales were very popular with girls of eighteen and nineteen, for they had never had them at the fairy-tale age. The story hour was most popular from the third to the seventh grade and in the tenth they preferred to read. The story hour certainly has possibilities not yet developed.

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[1] L'École Municipale Lyonnaise de plein air. Rapports du D. P. Vigne. La Pouponnière Municipale Lyonnaise de plein air. Rapport du Dr. M. Pehu. Imprimeriés Réunies. Lyon, 1909. Les Cures de plein air. Par Dr. P. Vigne, Baillière, Paris, 1910.

Boys and girls of thirteen or fourteen who frequent libraries begin to turn to the shelves for grown-ups and at this age reading clubs are often of advantage and are formed by libraries. Miss C. M. Hewins has described many, e. g., a Polar Club for reading of Arctic explorations, an Agassiz Association which studied nature afield in the summer and read about it in the winter. Upper-grade children who stay in town during the summer come weekly to the library for a book talk and these, perhaps, are grouped, e. g., those that tell how to do things, chivalry, and scholars, stories of castles, and the children discuss the Henty or the Hildegarde books. A common interest helps greatly in organizing a club and so does connection with a settlement if it has a small book collection. Some readings can be acted in pantomime. These clubs often work very well in connection with the library in a small town where there is more leisure. In such places they have been connected with nature study, flower missions, exchanging colored post cards, study of sleight of hand, stone, clay work. Miss A. A. Blanchard has found story-telling a valuable library tool for guiding children's reading. If a good story is told the child wants to read the book from which it comes, so that it is a valuable mode of advertising good books. Story-telling as a library function is to create an intelligent love of good books. Because the story-teller can entertain she is generally fatally prone to lose sight of the purpose of her story-telling, which is to guide reading and not to entertain or establish pleasant personal relations. The library must not forget that the school also tells stories, and must correlate. Charles Cotton Dana thinks that the library should concentrate its energies in training teachers and others engaged in educational work to tell stories rather than in story hours for the children themselves, by which a relatively small number are reached. Sometimes grown-ups have almost crowded out the children in the story-telling room and hour of the library. Many libraries upset their routine and greatly impair their work by telling stories. Some children's librarians regard school visiting as a part of their work. A story-teller can visit three schoolrooms, telling stories to 40 children each time and perhaps bring an influx of 120 to read the book in the library, so the book must be there. Style is important and often the story-teller's version is without charm. All or some of a few stories and a little of most should be given straight from the book. We give the child too little credit for literary appreciation and some of our simplified versions, like the Hiawatha Primer or the Stevenson Reader, are overadapted, almost to the point of foolishness.

The Cleveland Public Library does excellent work for children, studies as well as stimulates individual tastes, fosters school libraries, fights bad literature, has cases of 40 or 50 books to send to homes that are remote, fights not only vile but second- and third-class books which are so prone to eclipse the best, finds girls more amenable to advice in reading, etc.

Library clubs often have hard problems, says J. F. Hume, e. g., with the stolid, lethargic child, but the name and purpose may stimulate reading. The Neptune, King Arthur, Carnegie Hero Clubs have brought much mental alertness. Poor children in seaside resorts are distracted and demoralized by trying to make money out of summer visitors. Their hero standard, however, was high, for they most enjoyed the tale of Father Damien among the lepers at Molokai. Flippant girls, too, were weaned from the McCutcheon type of literature and turned to Andrew Lang, Lorna Doone, etc.

The Pittsburg Library offers a two-years' training course for children's librarians, with a diploma, etc. Not only do books find out and go to homes and schools instead of waiting to be called for, but the librarian goes wherever children are gathered, tells tales in streets, alleys, backyards, and to the sick, and incites all to read. The pupils in this school are taught, besides the general principles of library work, the equipment and administration of children's rooms, book selection, how to read aloud effectively, the use of pictures; child study is emphasized; there is plenty of apprentice work, and studies of bibliography of children's books. There are plenty of good positions for those who are capable at the end of the course, which is often taken by girl graduates. Children can hardly ever be told stories enough. There are now many descriptive book lists for boys and girls, old and young, classified by topics and with due reference to seasons and to the course of study in the schools where, especially in history, geography, and nature study, coöperation can be very effective.

Mr. R. T. Wyche,[1] president of the Story-Tellers' League, tells us how it originated one summer night at the Knoxville Summer School, in July, 1903, where a group met on the lawn at twilight for story-telling. The dreamy quiet, the trees, the darkness obliterating the faces and bringing out the voices, heightened the effect. The organization directed effort toward the world's best literature. It wrestled long with the question of what kind of stories to tell, and what the child needed. Leagues multiplied, pantomime, songs, and games were added, the work spread to churches; some children showed great talent, adults came in. The literature of different countries was rummaged. Surveys gave settings, stories were fitted to Thanksgiving, Christmas, and other festal days. Story-telling goes back to the days of runes, sagamen, scalds, bards, minstrels, and rhapsodists, when men rehearsed their own and others' deeds, told adventures and myths. Everything is made more zestful if given story form.

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[1] Some Great Stories and How to Tell Them. N. Y., 1910, pp. 181. The Child and the Book, by Gerald Stanley Lee. N. Y., 1907, 161 p. Stories and Story-telling in Moral and Religious Education, by E. P. St. John. Boston, 1910, 100 p. Leitfaden zur Geschichte der deutschen Jugendliteratur, von Herm. L. Köster. Hamburg, 1909, 86 p. A Mother's List of Books for Children, by Gertrude Weld Arnold. Chic., 1909, 207 p. A Child's Guide to Reading, by John Macy. N. Y., 1909, 273 p. Book-Selection Committees for Juvenile Literature in Germany, by Isabel Chadburn. Library Assoc. Record, Feb. 15, 1907, vol. ix, No. 2, pp. 56–70. The Library and the School, by Claude G. Leland, and others. N. Y., 1910, 114 p. Das deutsche Märchen, von Prof. E. C. Roedder. Monatsh. f. deutsche Sprache u. Päd., Jan., 1909, vol. 10, No. 1, pp. 10–17.

The one supreme need in all this story and child-reading movement is to eliminate not the vile, for that is readily detected, but the second and third best from the first best. The most favored children have too little time even for the latter. The vast catalogues of children's books now often put forth by libraries, so carefully classified by topic, etc., and the boards of good men and women who carefully read everything before it goes into the children's room, are all right, but only crude beginnings. The vital problem is to produce and identify the very best and to save children from the second best, and to get the true and normal child point of view. To this end every census of children's preferences should be carefully studied and more are needed. The chasm between what adults think children crave and need and what they really do is narrowing but is still wide.

Moving Pictures.—Dr. J. E. Wallace Wallin[1] calls the *kinetoscope* the most highly evolved educational instrument which the present century has bequeathed. It addresses every day some three million people. It is a craze, the psychology of which is not yet explained. It presents living rather than dead things like other pictures. The constant change, the greatly accelerated activity of *dénouements,* appeals not to voluntary but to instinctive interest and attention. These are hereditary, not acquired, interests. The very eye tends to things that move; and these are so striking as to often be illusory. Children often shrink from an approaching steed or shriek over a murderous attack. Curiosity and change come in. Thus all the stages of a manufactured article can be presented, a wedding, coronation, prize fight, joke, etc. Our city blocks are honeycombed with these shows, of which Cleveland has over 80 and Greater New York 1,500. It is the theatrical sensation of the century. The vividness surpasses reality in many respects. Its plot is throbbing, soul-stirring, and as a mode of presentation it is infinitely ahead of the linguistic method of speech and makes description unnecessary, save as supplementary, and throws object-lessons and pictures into the dim background. Moreover, situations can be manufactured at will with any kind of modification and even reversal. It can reproduce scenic effects of earthquakes, fires, famine, war. With an exposure lasting .042 of a second, 400 successive phases of the firing mechanism of an automatic pistol have been photographed in less than $\frac{1}{10}$ of a second. It has possibilities in popularizing instruction far exceeding the People's Lyceum and no educational instrument probably ever made such an appeal. It is full of suggestions for continuation schools and extension courses. It is used with talks in social-betterment work. Manufacturers now give free educational exhibits of animated photography showing microbes, chemical combustion, fruit-growing, microscopic curios, logging, various travel trips and, in fact, a whole excursion through Europe in two hours. It has enabled us to appeal from voluntary to involuntary attention, which means great economy.

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[1] The Moving Picture in Relation to Education, Health, Delinquency, and Crime. Ped. Sem. v. xvii, No. 2, June, 1910, pp. 129–142.

On the other hand, these shows are often held in a death-dealing, stuffy, overheated, devitalized atmosphere. The Cleveland Humane Society found half of them unfit. Some halls have no windows or exhaust fans. They usually seat from 150 to 400 and are being constantly filled and refilled. They are often death traps in case of fire. Wallin asked 63 girls from seventeen to twenty-one the effects this had induced upon their own feelings, disposition, and health, which they were told to tell in truthful, moderate terms. More than half said watching moving pictures caused headache, fatigue, eye strain. One mentioned a tired, drowsy feeling, a queer mood, walking on air, and maybe an adventurous state of mind, although eight ascribed their headaches to bad air. Sitting near the screen is a great strain to the eye because of the constant shift. Some were kept away for that reason, and others because of the trivial, disgusting, silly, or unnatural subject matter. Worse than this, some cause "a new moral leprosy." The Cleveland Humane Society found one hall connected with a saloon and one under a disorderly house. Out of 290 films, this society found 40 per cent objectionable, as follows, some pictures having two or three objectionable features in combination; stealing, 13 per cent; murder, 13 per cent; drunkenness, 13 per cent; indecent suggestions, 8 per cent; house breaking, 7 per cent; loose ideas of marriage, 6 per cent; domestic infidelity, 5 per cent; vicious mischief, 3 per cent; suicide, 3 films; kidnapping, 2 films. Sometimes men and even women call for encores of the most revolting things. The mere thought of movement is incipient movement and there is great suggestiveness here. Many spectators have learned how to snatch purses, pick pockets, burglarize, shoplift, hold up and rob, or flirt with a neighbor's wife.

Wallin asked students of psychology to write whether they had ever seen, heard, or read of children or adults acting out suggestions of moving pictures: 29 said no, 8 were doubtful, while all the others reported instances they had personally observed or learned. Some of these were as follows: 7 related to jokes and pranks, 5 prompted stealing, 4 a desire to do as the picture actors did, and 2 fighting. One learned to do unpleasant duties more willingly from having seen an act of self-sacrifice; one presented a scene of great poverty which prompted a girl to help the poor; a boy got the skeeing mania; another went through acrobatic acts; others, war scenes, tricks, new steps in dancing, grimaces; some imitated Indians and cowboys, creeping stealthily on hands and knees toward a white man with a knife in the mouth; another imitated soldiers, made a sword and brandished it; one learned to fight a big brother, to play tricks, April-fool jokes, and to trip another, made trick candy with mustard and pepper in it, put pepper on the stove and a hair from a blond head on his father's coat, with disastrous results. Boys reanimated street-chasing scenes, falling over boxes, etc. Boys have learned to send in false fire alarms by telephone, demand that the police go to certain places, refuse to go to school, and roam in search of adventure. Repeatedly petty larceny has been directly inspired by cues and tips from picture shows. Sometimes boys have become desperadoes and a girl was prompted to run away from home. All kinds of mischief, waywardness, and juvenile delinquency are due to the fact that in Cleveland 20 per cent of those attending evening shows are children. This is against katharsis but is fact.

On December 24, 1908, Mayor McClellan revoked the licenses of 551 moving-picture shows operating under his license. This opened matters and Frank Morse, president of the Society for the Prevention of Crime, and his associates gave them great stimulus and encouragement. The People's Institute, too, had a board of censors which developed into the present National Board. This board will supply to any city lists of moving pictures which they approve. Most films are imported. The Board of Censors now controls about 75 per cent of those circulated in this country under the act of March 26, 1909, but it does not control those used before. It strives to improve the quality. Its members work without compensation, have arranged some model shows with model speakers. The film business is very unique and embraces nine tenths of the total theater problem, for moving pictures are the chief form of cheap amusement, the only theaters where whole families can go. There are various manufacturers and importers, most of the best of whom have agreed to submit to censorship every picture intended for the entire American market. A recent number of the *Moving Picture World* estimates that 100,000 persons attend these shows per day in Chicago alone. This would mean 36,000,000 a year. Very often there are hold-up scenes, burglary, shoplifting, many kinds of stealing, and many undressing, skirt-lifting, and bedroom scenes. These are found especially in the penny arcades. The worst things are often kept for late hours. The laws in this field are not enforced. There is no means of telling from the license record whether a place is licensed as a five-cent theater, a penny arcade, or a high-class theater. The license costs some $200 a year.[1]

E. H. Chandler considers the *theater* passion of children from ten to fourteen as "a new and curious disease," which often tends to render those who have it "inefficient for the remainder of their lives." Special investigations that he conducted in Boston showed that "nearly all the children between ten and fourteen attend some kind of theater occasionally and not less than 10 per cent go at least once a week." He, too, realizes the possibilities of the moving picture, with all its tricks of photography which can show before the eyes so many things that are utterly impossible. One gets more vice, virtue, rough horse play, and everything else for the money than any other form of entertainment can provide. School teachers testify with great unanimity that theater-going makes boys crave excitement, makes them *blasé,* uninterested, listless, sometimes prone to drop out and earn a little money to indulge this craze; young girls are affected in their ambitions; they assume the mannerisms of the stage and perhaps its dress. Many are actually sleepy during the day from the late hours involved. The yellow plague of sensationalism is bad. The dramatic instinct, however, needs cultivation. "There is little value for the child of fourteen or under in the public stage as it is to-day."

The drama committee of the Twentieth Century Club, of Boston, studied its theaters and moving pictures for ten weeks (November 28, 1909, to February 5, 1910). They found bad business arrangements in sudden changes that worked against giving theaters a permanent *clientèle.* Vaudeville, burlesque, and moving pictures showed 6,500,000 seats sold for ten weeks; moving pictures showed over 400,000 seats per week; legitimate drama probably about 1,000,000, or over 7,500,000 total for ten weeks in a city of 625,000. "Boston has a larger number of performances of the cheaper class in proportion to the population than any other American city." She expends about $273,000 per week on amusements. There are also "tremendous and growing tendencies toward lower and less desirable forms of recreative amusement," so that the educative force of the theater is degenerating, and even good theaters introduce vulgar, burlesque features. All this cannot but tend to lower public standards of morality.

The size of the auditoriums varies from 250 to 3,000 and the number of performances per week from 5 to 78. As a rule, theaters rarely play to less than two thirds of the house capacity:[2] During the crowded part of the evening and afternoon, the programme is shortened, sometimes half, i. e., from an hour and a half to forty-five minutes, to get a greater number seated. Literary drama is at a low ebb. Vaudeville is largely to women and children and is innocuous. A clean play is a better business proposition than one that is vicious or even suggestive. The worst criticism is the enormous padding of inexcusably dull, mediocre, stupid things, which it is not for the interests of managers to improve upon so long as their houses are full. So the actor plays down to the audience. The Bijou Dream tries to make moving pictures educational and has been so successful that the price is raised to twenty cents. On Sunday evenings the moving pictures run from four to six performances; and Sunday-night concerts are more crowded than on any other except Saturday nights.

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[1] The Motion Picture, by David S. Hulfish. Chic., 1909, 144 p. How much Children Attend the Theater, the Quality of the Entertainment they Choose and its Effect upon them, by Edward H. Chandler. Ped. Sem., 1909, vol. 16, pp. 367–371.

[2] See American Magazine for March, 1910.

Newspaper criticism is controlled by advertisements and almost never attempts to inform the reader as to the kind of show he is to see. The public is, for this and many other reasons, constantly misled. There is no way of telling whether a play is worth seeing. The critic's eye and ear hark to the counting house. " Only in one case, ' The Girl from Rector's,' did they speak out," and even here the *Transcript* was apologetic and palliative.

Theatrical advertisements need reform, e. g., Loie Fuller was advertised, but did not appear. " The Midnight Sons," advertising 250 people really had only about half that number. Misstatements about runs, especially in New York, are common. The law after the Iroquois fire was strict in Massachusetts, but applied only to new buildings, and is not enforced. Austin and Stone's complies with no law. Sometimes the gallery is at too great an angle. The Bijou is up thirty-two steps and there is no landing every fifteen steps. The licensing officer does not report on the condition of the theaters yearly as the law requires. Hardly one has the required number of fire escapes. We only need to linger to see the time it takes to empty the house.

The regular theater license is $100 per year, and for moving pictures, $75. The law requires the manager to run no film without turning up the lights five minutes out of every twenty. The vaudeville interest tried to investigate and check the moving pictures as violators of the law. " The Girl from Rector's," in eight performances the first, and ten the second week, drew 51,264 people. " The Black Crook " seems almost pure to-day compared with some of the barefoot and seminude shows that are popular now. There is a deluge of scantily clad dancers. Again, it is demoralizing to remove the barrier between performer and audience by sending over the footlights, swinging out, having the chorus march out the aisles, talking across the footlights, etc. The theater can be reached through its license. The full power should be with the licensing authority and it should be responsible for the character of the performances and have power to withdraw a license at once. Sometimes years of litigation are necessary; and this is used as an advertisement. At present no authority can close a house even under the most extreme conditions, no matter how flagrant the offense.

Motion pictures John Collier calls now the foremost art influence among the middle and lower wage-earning classes of the country. They constitute the family theater and are attended by more than 2,500,000 people daily in our land alone. There are now about 10,000 such theaters in the country as against 1,400 theaters of all other kinds, including vaudeville, with an audience four times as large. These amusement houses deal with elemental instincts. The regular theater is dominated by the tastes of two classes; travelers and the leisured people, and the fashions in this country are mainly set by New York and they are certainly very far from satisfactory, and are often low and even salacious. Nearly a quarter of the audience at moving-picture shows are children under sixteen. About 60 per cent of the school children of New York go at least once a week. Now, as against the charge of eye strain, it has been found that these pictures are very effectively shown with a far less degree of darkness than formerly. The light, indeed, can be sufficient to read by, and this obviates another moral danger. The Massachusetts Law forbids children to attend unaccompanied, except in the afternoon. Cheap vaudeville almost has to be bad, and the cheaper it is the worse and more alluring it has to be. Moving pictures, however, do not need to be poor in proportion as they are cheap, but the best can be seen for the smallest fee. Economic reasons are thus coming to be very potent for morality and health, and especially they are destroying in this country the degrading alliance with the vaudeville which all over Europe is now at an end. They are also driving out the penny arcades, which is also a good riddance. The war on moving pictures has been bitter and has been in part instigated by the theaters, and by the newspapers with whom theaters are often the very heaviest of all advertisers. The moving-picture shows rarely advertise at all. The censors have in the year ending July, 1910, destroyed about $200,000 worth of films. To them now all the original negatives are submitted. The censors constitute a bureau of information on all matters pertaining to the selection and use of films. The latter often deal with moral problems and so must sometimes represent crime and vice. Indeed, this has always given the dynamic element to the drama and to romance. We are told that about one fifth of all the film series now obtainable are directly educational, dealing with school topics. Two fifths are civic or heroic, and of the remaining two fifths, one touches evil, but this is always punished and in this respect the moving picture is a great improvement upon life, where the guilty often escape. Moving pictures are certain to be introduced sooner or later into schools, playgrounds, and churches. Their repertory, actual and possible, is as large as life itself. Their educational influence is to a great extent emotional. That is vital. They offer an immense new field for vicarious experience. They are the most democratic of all art. They are a great social force which we must learn how to master.

We have not begun to conceive the educational possibilities of moving pictures, which are comparable in importance to the invention of printing and are destined to play an immense rôle in pedagogy. Every church, Sunday, day and evening school, should and will have them. Their power in developing attention and morality and in giving a knowledge of the world is simply incalculable. Even in industrial education, as I have shown, they have a vast rôle.

The clumsily named *institutional church* represents a church-extension work, which seeks to "save all men and all of the man by all means, abolishing the difference between religious and secular and sanctifying all days and all means," to the end of advancing Christ's kingdom. This work was really begun by Dr. Rainsford, who, in 1883, found himself pastor of an old down-town East Side church in New York, most of the members of which had moved uptown, and the rest advised closing. But the region was full of needy people and a new method seemed imperative. Now, besides the church and rectory, there is a five-story Memorial Home, a four-story Deaconesses' Home, a three-story trade-school building, and a seaside cottage. In the trade school, drawing, designing, typesetting, plumbing, steam and gas fitting are taught, and job work is taken. All the three hundred boys here must attend Sunday school. They work mostly in the evenings or outside school hours. There is also an employment bureau. A Battalion Club gives military drill and athletics, has club rooms, a rifle range, the use of the Ninth Regiment armory hall, a drum, fife, and bugle corps under paid instruction, and the club each summer goes to a camp under military rule. A Girls' Friendly Society teaches cooking and other domestic work, besides dressmaking, millinery, and calisthenics. The Men's Club occupies one floor of the Parish House. It has a library, reading rooms, billiards and other games, and a gymnasium, and is open daily from 8 A.M. to 11 P.M., except Sunday morning. Smoking is allowed. Members must be eighteen and pay a small fee, the members directing the activities. The club, of course, has to compete with the saloon. A Married Women's Society provides domestic classes, physical culture, teaching of literature, etc. The Sunday Afternoon Club provides for tenement girls, who cannot bring their young men friends to their homes and must otherwise see them in parks and theaters, a social room with tea, coffee, a piano, and sometimes a special musical programme. This is open evenings for dancing and other purposes. The deaconesses sell groceries at cost to the poor. A trained nurse visits the sick and there are three endowed beds in different hospitals. A Women's Industrial Society gives out sewing to be done at home, and also has a workroom open four days in the week, where women can repair donated old clothing and make new, which is sold at cost to the poor. Both the home and the workroom are under paid superintendents. There is a seashore cottage at Rockaway and a fresh-air fund, so that everyone in the parish can visit the seaside four or five times during the summer, free of expense. For consumptives, instruction is given, the advice of two physicians is provided, and a roof camp for their treatment. Saturday morning the children of the neighborhood are brought in for recreation, folk dancing, gymnasium, and so on, and there is a summer camp for boys. Lately, a model flat has been plainly furnished where girls are taught home-making and practical housekeeping.[1]

In 1906 Josiah Strong studied thirty institutional churches. Memorial Church, N. Y., develops various extensional features under an institutional pastor. Others have parish physicians and burial funds, and some have more than a score of lines of activity, with various agents, each grouped under missionary, charitable, educational, social, industrial, and athletic. Another New York church has an open parlor, with Sunday night meetings. Many have lectures to young men. A Boston church reports 59 regular weekly meetings, and 102 lines of philanthropic activity for adults and 40 for children. In its clothing department, 50,000 garments were disinfected, cleaned, repaired, and sold to the poor. The church does active temperance work, has a branch of the town library, and a parish house available for manifold social functions. A Cleveland church has organized an orchestra of over thirty pieces. Another has opened and administers a milk dispensary. The Denver City Temple has an employment bureau for girls and a day nursery. Some of these churches have Big Brother and Big Sister organizations and social settlement work. The Russell Conwell Church, in Philadelphia, as Conklin has said, is in a class by itself. It conducts industrial, collegiate, and professional education, with some three thousand students in its day and night classes. It does hospital work. Some of these socialized churches have loan libraries, loan associations, lodging houses, fresh-air work, coöperative stores, rifle ranges, and the annual cost per church ranges from $600 to $150,000. The men's brotherhoods, of which there is now a national organization, a few years ago almost stampeded the Protestant churches, which have suffered from lack of something definite to do. They were strong enough to elect the mayor in Columbus, in opposition to the machine. They have been most successful where they have devoted themselves to their ideals of masculine piety and to specific campaigns, e. g., against indecent moving pictures, violation of child-labor laws, caring for poor consumptives, enforcing death and disability benefits, and loaning to those in trouble, effecting legislative reforms, etc. The intellectual side courses for the brotherhood have not been very successful.

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[1] The Institutional Church, by Edward Judson. N. Y., 1899. 211 p.

The institutional church movement has had its critics, who have demanded more spiritual results. The work has been attended by a great and sometimes phenomenal increase of membership (e. g., Berkeley Temple and Pilgrim Church, Cleveland). Many churches have some of these features, so that it is hard to classify them. Some of them, too, are found in Europe. In Berlin, e. g., three evenings a week, the poor may consult a lawyer or doctor without expense. These are sailors' homes, fresh-air provisions, enforcement of marriage in cases of illicit intercourse (which has been done in Paris in nearly three thousand cases annually). By all these means the Church is "adjusting itself to the changing order of society and justifying itself in the eyes of its friendly critics." Overworked as pastors are, they ought at least to advise assistants and inspire men and originate methods in these fields. Too many of them, however, are incompetent. And one reason is the low estate of training in our theological schools.[1] Theology, dead language, and exegesis are overemphasized. A close study of the catalogues shows how poorly clergymen are trained in these institutions to meet the moral and religious crises of our times, how little they know of education in its larger sense, of psychology from the genetic point of view, and of sociology.

The relation of the Church to Labor is a vital question and to this one man, Rev. Charles Stelzle, has made a great contribution since 1903. On the meager sum of $9,000 a year, mass meetings of laborers are held in 287 cities, and with the approval of the American Federation of Labor, very important changes have been slowly wrought in the attitude of workmen toward the Church, which was in danger of becoming actively and generally hostile. Articles of a religious character are now printed in 350 labor papers, and the attitude of this press toward religion is being modified. Movements for labor halls apart from saloons are promoted and association between individual shops and churches, and the institution of Labor Sunday preceding Labor Day are advocated. Correspondence courses are offered for religious working men; sometimes reference libraries with current literature bearing upon labor have been established.

The time may perhaps be nearer than we think when the church will be called upon to pay taxes, from which it is now, like universities, exempt. Year after year, representatives of Massachusetts colleges have had to appear before the state legislative committee to show cause why their buildings and grounds and professors' houses, etc., should be longer exempted from assessment. Like the college, the church is a public-service corporation and untaxed, but its fine buildings, closed during most of the week, save the hours of service, have already begun to be criticised for their aloofness from life, and in some states may soon have to justify their immunity from contributing their quota to state and municipal expenses. When this call comes, their extension work will be their most effective plea. A service or two a week will not permanently satisfy the practical, hard-working, economic, wage-earning taxpayer, who is often more or less socialistic. The public opinion that demands that schoolhouses and grounds be open after school hours and in vacation will not forever tolerate the ostentatiously useless or splendid religious edifices closed on week days, nor the exclusiveness of churches conducted by closed clubs for the benefits of members only. The community will inquire sooner or later what is the real value of the practical service which they render to it. Thus from the sordid viewpoint of common prudence, each church should begin to consider what extension work is feasible for it. The kinds are very many, and every church should and could work along some lines.

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[1] See D. S. Hill, Educating Ministers. Am. Jour. of Relig. Psychol. and Ed., vols. 2 and 3, 1907–08.

Quite apart from and above all this, however, social help is at bottom the very essence of Christianity, and the social misery about it is always and everywhere about the hardest call that can be made upon every church. People must be saved for this as well as for the next world, and one of the best tests of the vitality of a church is what it does for those outside its own communicants and enrolled parishioners, what it contributes to the great sum of the world's work, how much surplus and overflow it has to show. This work always augments and enriches the life of a church, and each member concerned in making the religious influences prevail in weekday and secular life. What live church with a willing and efficient pastor as a leader could not recruit a corps of volunteer helpers along at least a few most needed lines? Perhaps it is too much to ask at the present state of this movement that the motive of enlarging the church itself or the Sunday school be repressed, and that all these gifts be free, with none of the requirements now so often rigidly insisted on to attend or do something for Jesus or the church. Not the aggrandizement of an institution, but human betterment, is the ideal and the paramount aim. We should freely give as we have freely received, and if we owe the good God anything, He wishes us to pay it, not to Him, but to our fellow-men. A boy who attends divine service or memorizes a Bible lesson in order that he may be admitted to a church gymnasium, swimming pool, or summer camp, is bribed, and worst of all he feels profoundly that he is, and this in itself impairs rather than ennobles his character. For he knows that the enjoyments provided for his use are not pure philanthropy, but have a selfish recruiting motive. The churchmen, too, ought to realize that the most attractive amusements which they provide are good in themselves and for children, quite apart from their value as a means to an ulterior end, even though that end be deemed higher. Youth must be supremely conserved, and however much the church or any other institution does for its youth, it never does enough. Who does not know churches, especially of the highly cultured and liberal type, that instead of extension pursue a contractive policy? What would happen if somewhere one such church should deliberately vote to move from its comfortable uptown, luxurious home, down town into the tenement district, and into a bare hall? Scripture tells us that Jesus descended from a far greater height to a far greater depth for our benefit. Is there not to be somewhere some church community that will try such an experiment as the above? In Jesus' time the only church was where he and his disciples went, and if the Master were to return to-day and found a church, who can doubt that it would be of a highly institutionalized type? [1]

The Church Temperance Society (Mission House, Fourth Avenue and Twenty-second Street) published, in 1894, a very valuable set of social statistics of a city parish, based on an inquiry into St. Augustine's Cure, Trinity Parish. Diagrams of many blocks were printed, showing the liquor and lager-beer saloons; others showed the churches and parishes; other schedules studied the number in families, the closets, water, drainage, tenements, business, wages, etc. Several studies were made in the German, Jewish, and Italian quarters, showing average monthly rental of families compared to their size and the number of rooms, the number of other people living in the section, etc. Some of the worst resorts were, e. g., Italian quarter, Mott and Spring streets, three-room tenement, $11 a month, husband, wife, four daughters, oldest eighteen, two sons, and eight male lodgers—total sixteen. Another tenement of two rooms, $8 per month, widow and son, and nine male lodgers. Some cities have reconstructed radically, as Birmingham, in England, did thirty years ago, buying up forty-three slum acres and reconstructing them. In this survey, saloons, brothels, and gambling houses were not distinguished, and 563 of them were found in 58 blocks with about 50,000 inhabitants; in the German, 1 to 111; in the Jewish, 1 to 208; in the Italian quarter, 1 to 157 of population.

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[1] Since Stead's "If Christ came to Chicago," this If-Jesus-were-to-return-now-motive has had many illustrations; and there is another illustration in Elsa Barker's novel, "The Son of Mary Bethel."

This work "was undertaken with a view to extending the usefulness of our own church." A rector must be as close in touch with his people as any resident, and must remember that as much, if not more, can be done week days than Sundays, and must have a staff. All churches should devote more time, space, and strength to local secular work. Gymnasiums, swimming, physical culture, a library, and reading room are important. A club of men managed by themselves, a school to teach cooking, and home management and training of children, should be continuous. Here is a chance for diverse creeds to unite in the struggle for the lives of others. Churches should not desert the down-town region.

The American Institute of Social Service (Josiah Strong, president) believes that here is a great opportunity for church brotherhoods and the lay manhood. These brotherhoods number now about a million members in the country, and the Y. M. C. A. has half a million more. The Federal Council of churches has voted to use the American Institute of Social Service in its investigations. Most of its work is adult work. Philanthropic movements are sure to find their efforts thwarted by some opposition rooted in profit. There ought to be a union of church brotherhoods. The more men to whom definite work is given to do, the better the work and the greater the interest. There are committees on municipal candidates, trade unions, employers' associations, and a campaign was pushed against slot-gambling machines, moving-picture shows suggesting lust and crime, of which more than forty were closed in Rochester and some films confiscated. Child-labor laws have been enforced. At Riverside, California, tents and open-air spaces for consumptives were established. Many members have pledged themselves not to purchase anything from stores on the Sabbath or after six at night. In another place, "blind pigs" were fought, the brotherhood quietly securing evidence. They have mutual benefit and insurance societies, employment bureaus, local-option clubs, etc.[1]

In justice to the Catholics it should not be forgotten that that

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[1] See The Gospel of the Kingdom. Studies in Social Reform and What to do. Josiah Strong, editor. Published by the American Institute of Social Service, New York.

Church is and long has been institutional in the largest and best sense of the word, and has long done most of these things so new to Protestants and several more. The Society of St. Vincent de Paul, e. g., made the twentieth annual report of its Central Council in Boston in 1908. Its sphere embraces every phase of charitable work for adults and children. One feature of it is that its work is secret and confidential and most of the aid is given by those who receive no pay for their services. The society in this country celebrated its diamond or hundredth jubilee in 1908.

The Christ Child Society (Catholic, 1890) seeks first to bring Christmas cheer to the lives of unfortunate children, who are clothed, visited, instructed, the delicate sent on summer vacations, and to establish settlements, especially in city localities tenanted by foreigners. The visitors insist upon the necessity of baptizing the newly born and counsel religious instruction for the older children. The society also has sewing schools, girls' clubs, libraries, and does hospital work.

The Ministering Children's League (London, 1885) is to help children of church parishes to be thoughtful, loving, and kind. Its members are bound to a simple rule of kindness and a short daily prayer. It aims to form unselfish characters by the practice of unselfish acts. It works for the sick poor, blind, lame, prisoners, epileptic, hungry and unclothed, has sunbeam missions, etc.

The Sunshine Society (incorporated 1900) is now international. Its first motive was to pass to children, who would more appreciate them, Christmas cards and other inexpensive presents. Its broader object is to promote kind and helpful deeds, to bring happiness to the greatest number of hearts and homes. Its motto is "good cheer." Its floral emblem is the coreopsis. It has a home for blind babies, a country lodge, sunshine room, fresh-air home, in some places lunch rooms, free libraries, hospital beds and wheel-chair fund. It has various branches, publishes a bulletin, cultivates patriotism, etc.

E. St. John criticises present *Sunday-school* methods, thinks they have been too isolated from everything else, taught on a certain day and from a certain book and in a certain building and usually by a certain teacher. He does not agree with those who would have a reader read to the Sunday school all its time for this would sacrifice personal elements, nor does he agree with those who overstress Bible geography in the Sunday school. In England, boys of fourteen and sixteen study the pioneer one Sunday, the next Sunday play pioneer dramatically. Grading and promotion in the Sunday school should not be theological and should not be chiefly to prepare for church membership or even to give an intellectual knowledge of Bible literature, but it should shape character. First should come nature worship; then its forces are personified; next comes the study of magic, where man proposes to control God; then he realizes that his incantations and charms are ineffective and God must be obeyed rather than controlled; and last comes a higher, aspirational type. This suggests the basis of a new curriculum.

P. Du Bois, in describing the functioning of the Sunday school, says that not everyone can know a good one when he sees it, that its aim is to make good men, that it is not tested by the number of conversions it causes. An Ohio penitentiary reported that 75 per cent of its convicts had been Sunday-school pupils, and Jane Addams said that of 15,000 juvenile delinquents about all had some religious instruction. Thus the Sunday school did not function well. It did not level up in morals nor does it really teach biblical knowledge. The moral character of the Sunday-school administration itself is often bad; promises are broken, banners and prizes unfairly won and held. The school conduct is thus often made distinctly immoral. So, too, the Sunday school is often petty, scrappy, effeminate, unprogressive, relies on superficial trickery, alliterations, glad-hand, catchiness, and is tending toward " a moral suicidal insanity." Every good Sunday school should encourage independent thought, should credit all other religions, make the sanctions of Christian experience supreme, cultivate self-expression, have elective courses, keep close to scientific methods, even in philanthropies, and consider defective children.

For the younger grades in the Sunday school a course of study tends to overcrowding, and we are not out of the danger zone, says Lester Bradner. We now pick out periods of the child's life and prepare people to deal with each, and this is a very beneficent advantage. Probably the text-book method is increasing and likely to do so still more as teachers understand it. Mission study inculcates the instinct to serve. Worship, too, should be adapted to the younger elements in the school, so that the child can appreciate and practice the inner aspirations of the soul.

The Sunday school ought to develop social consciousness, and Dr. R. M. Hodge thinks that since the Reformation and Adam Smith we have gone mad in emphasizing individualism. Character is a by-product of religious activity and Jesus said that " If you try to save your soul, you lose it." Social welfare is now the watchword of both education and religion. The superintendent is a czar with both executive and legislative power and often calls his teachers disloyal if they suggest an innovation, and so the teachers expect the pupils to learn only, and doubt is deemed irreverence. Classes should be democratic and be consulted and vote on most questions, such as place and time of picnics and celebrations. They furnish the money and are now taxed without representation. One Sunday school voted its money to the child-labor movement. The curriculum should develop group consciousness, and we must study the founders of other religions, for this unites us to our fellow-searchers after God. Doctrines probably have a place, but they should be graded. Pupils will respect the teacher's opinions just in proportion as he respects theirs. " Was David worthy to be a member of our class? " the children were asked, and they said, " Yes, because he was in the Bible." But so was Goliath. He was not measured by a standard of virtue, but convention. The teacher can appeal from the individual to the group, and when the child says "Yes," but the others do not think so, the teacher is lost. Boys act and form their class codes of honor in groups and individual codes are by-products. In dramatic work, children may take their place on the floor according to the relative position of their homes. Saul, the Good Samaritan, and other things can be acted out. A single Sunday-school room is no longer advocated. The old Akron plan was class rooms made part of an auditorium by movable glass doors, but this is not sufficient. Each class should have its complete room of lath and plaster. The church proper, and not a separate room, should be used for Sunday-school worship, for it is a waste to have a costly auditorium for the children alone. The Sunday-school buildings should be modeled on the best private plan and be under the church in a basement.

New departures in Sunday-school pedagogy described by R. S. Clapp are many. Perhaps the most noted one is the movement toward a graded Sunday-school lesson system, under the auspices of the international committee. The Louisville plan contemplates an alternative course of lessons graded in special matter, as well as method. Professor Kent, of New Haven, is the father of a scheme by which the teachers of different denominations unite under a general superintendent or director with monthly or weekly meetings. His work is chiefly, however, the training of teachers in general pedagogy and better biblical knowledge. He can organize neighbor training classes by Union churches, whereby all intermediate teachers, e. g., of half a dozen churches, meet under one leadership and the juveniles under another. In New Haven there is a federation that pays a salary, raised by private subscriptions and Sunday-school contributions, for such a leader, who is often a clergyman and a student. The University aids by giving all teachers free access to its biblical library, but the salary question is grave and is best met in a university town. In other cities, where a large church has an assistant, who gives but half his time for this work, he can spend the other half with the Sunday schools. A difficulty is that the leaders are more liberal than the led, but this theological difficulty is obviated by stressing the pedagogical side. Other cities have a director of the Religious Education Federation of the city. Much child pedagogy can be used. The International Lessons in their new graded form must serve the majority rather than the pioneer minority. The Bible Study Union, or Blakeslee Lessons, have for twenty years been marked by systematic graded work, but it is hard to depart from the uniform scheme. The Union, however, has now engaged Professors Kent and Coe to make a new series of lessons in six courses and seventeen grades from four to twenty-one, with several elective courses for adults, which will go into operation January 1, 1911. The new series will not radically break with the past, but is a logical development from it. The new scheme is based on genetic psychology and each course can run nine or, for schools that have no summer vacation, twelve months. Temperance and missions will be represented. For beginners, a sense of God's presence and love in nature will be stressed. The primary course of three years will emphasize the truth of God's relation to his children and their duties. The juvenile course from nine to twelve will instill God's control and direction, inspire noble personal ideals and teach the Bible. The intermediate, ending at sixteen, will bring the individual into vital touch with God and the Church and awaken the spirit of service; and the senior course, ending at twenty, will lay historical foundations for strong, practical faith and ally the individual with modern religious and social movements. Thus, knowledge of the Bible and self-expression in practical Christianity is the end. The primary children paste pictures. The juveniles construct the Bible from perforated leaves, dramatic recitations, and declamations. Thus, in the lowest grades the heroic virtues lead over to a sense of the great personalities past and present. Jesus is the helper of children. God is the loving father and helper and wishes loyalty. Biblical material is supplemented by other literature which explains and illustrates it, nature study and stories in the primary, heroes in the intermediate, present-day problems in the senior and adult classes. Instead of stressing individual morality throughout, this emphasis is focused in middle adolescence and the Bible will be studied on the basis of the original records. A second alternative is provided for those who want a thorough connected knowledge of events in the light of modern research and present-day problems, and who wish to fit for Sunday-school teachers. Personal expression of religious truth is the main thing sought. The life of Jesus is stressed for the age of sixteen with story of His teachings with reference to personal problems, habits, conscience, and the inner life. Several of these courses have been already tried out with some aid from Pease's outlines. A group of able coöperators is at work on these texts for teachers and pupils, so that the directorate is no longer a dream.

Dr. David Muzzey, in presenting the ideals of ethical culture for children, insists that moral instruction should be given from the very earliest grades to the latest. The New York School has even organized study groups for young married people, lawyers, physicians, business men, etc. The Bible is taught as literature. The fact is recognized that in our civilization every child wishes to succeed and not only make a living, but get all he can in wealth and position. The competitive ideal that others must be beaten is not approved. The social order outside the school is not so very greatly stressed because it is held that the best training is given by improving the child's individuality and making the social order within the school the very best. In France the anticlerical movement has made the state almost hostile toward religion itself, so that its motives cannot be used to enforce ethics, while in German schools, on the contrary, ethics is taught on an almost purely religious basis. The child's early relations with the family, which he realizes in his sixth or eighth year and begins to feel responsibility toward his parents, and then the Mosaic code and Greek life, are studied; a little later, Socrates and the Plebeian-Patrician movement is presented, and as the child's interest widens from self to family, and town, the high school begins with the penal code of New York State, which shows the relations of the individual to the state and his obligations to it. The moral training is of the will and not the intellect. It appeals to the inborn nature of children and has little use for the historically formulated morality of the past. Palmer thinks moral teaching makes prigs of children and would postpone it till college. This perhaps is true of his abstract type of ethics. It is believed that the principle that the child repeats the history of the race is overdone and that the child of twelve has more experience than the adult of ancient times. Since September, 1909, a child under sixteen cannot be a criminal, but will be dealt with as a moral delinquent. The children's courts deal with them who come before them as mistaken rather than as morally bad. Of 8,200 cases that came up in New York, at the rate of about 1,000 a year, 7,100 seem to have been healed and sent home morally well. The ethical school has direct charities, hospitals, flower missions, visits to reformatories, etc.

There are in this country many training schools for religious workers, mostly under church and denominational control and some of them private. Some are missionary institutes; others have home or even foreign missionary work in view. The Hartford Seminary has a School of Religious Pedagogy, and years ago J. H. Wade, of Cleveland, proposed a college of religious philosophy. There are also a number of Bible chairs in colleges. The work of these institutions is usually very restricted, often entirely to scriptural or to ecclesiastical history and church work. Very few, if any, of them make prominent even the features of general philanthropy, and there is nowhere in the world to-day an institution devoted essentially to the higher study of the Bible, according to modern critical methods.

In a sense the *playground movement,* says Henry S. Curtis, began with the sand gardens of Berlin in 1885 and came the next year to Boston, where it was buried for ten years. In 1898 the Board of Education in New York began the present extraordinary development. In 1907 there were 90 cities maintaining playgrounds, and the next year 177. The equipment, too, was doubled. The playground is often kept open until nine or ten o'clock at night and lighted. The attendance per playground has greatly increased. So have its ideals. The first aim was to keep the children off the street. Now its ideals are physical health, strength, increasement of vitality, maintenance of right habits, social conduct, development of energy and enthusiasm, and the joy of life generally. The playgrounds began everywhere as private philanthropy. Lumbermen contributed boards; athletic houses, supplies; sand yards, sand; teachers, time. Next comes a playground association, usually of prominent people, to promote the idea and disseminate information in literature, pictures, traveling exhibits, etc. Since the first great demonstration in Chicago, 1907, play festivals have developed very rapidly. Playground supervision was thought a snap, but is now recognized as one of the most difficult feats of moral leadership, requiring special training. The playground committee now has a course intended for play leaders, another for summer schools and supervisors, and a third for normal schools. The teacher best knows the child and can best influence it through play. Play courses were given to regular teachers in sixty-seven places of Germany in 1908 and they are given perhaps in a dozen places now in this country. The Playground Association and the Sage Committee and many other influences are promoting this movement throughout the country. Indeed, large benevolences seem likely to swerve in this direction. The first great gift was the children's playhouse and ground at Fairmount Park, Philadelphia, by the Smiths in 1906. Then came a lull. Three or four years ago there were more gifts of playgrounds, which seemed to be a very suitable memorial. The playground system, which began privately, is almost everywhere being municipalized, and when this step is taken its extension is certain, because no section wishes to pay taxes to furnish children of another section with facilities not enjoyed by its own. In four years Chicago spent $11,000,000 on small parks and playgrounds; New York, $15,000,000 in ten years; and Boston on her 200 acres of playgrounds has spent $4,000,000. Playgrounds are now the fashion. We need everywhere a public official, who in Germany is known as the *Spielinspektor,* who can give courses in play to teachers, organize picnics, excursions, contests, sports. Without this no playground is complete. The Massachusetts law requires every city of 10,000 to vote whether it will have playgrounds. Nearly fifty cities have voted Yes. New Jersey has a state playground commission to acquire sites, employ teachers, and supervise work. The Ohio act allows school boards to maintain playgrounds. Indiana and Montana follow Massachusetts. Minnesota allows a city of 100,000 to issue bonds up to $100,000 to establish playgrounds. In Europe a minimum school requirement of playground space is usually enforced. Play training is more fundamental than school training, so it should have a place during the school day. New York requires, in its congested sections, roof playgrounds on all new schools, and modern tenement-house associations now often do the same. On old buildings, if they are strong, playgrounds can be superposed with little expense. In lower New York there are often 200 children to a block, so that the ground surface playgrounds are impossible. The children need all the space of the roof, court, street, and if playgrounds were on all armories, schools, libraries, baths, and other public buildings, it would mean much. Berlin requires playgrounds in the interior of tenement blocks. Streets, too, are made available. In Boston coasting is permitted on certain streets. New York seeks to close some for traffic from 3 to 6 P.M.; not every street is needed as a thoroughfare. On an asphalt street very many games can be played well. In Detroit there is a movement to secure concessions from all owners to throw open all vacant lots in the city to the children. We Americans are smitten with a feverish desire to become rich, learned, favored, happy, and our people are always tense, rushing, and crowding. We do less than if we were calm. We need more play-spirit, even in our work, for the play of children is only derived from the work of their ancestors. Drudgery makes strikes and unrest, and if work is the main thing in life it becomes joyless. It might be made more interesting and efficient by shortening hours, increasing variety, etc.[1]

Evening Play Centers in England have lately attracted much attention. There are now twelve in London, each with a roll of from 600 to 800 children, open five evenings a week and on Saturday morning. The school building is open in cold weather for play, exercise, and hand work as a better alternative than the streets after school hours. Not only is population growing denser, but the streets are more dangerous since motors, and tenements are often almost impossible after school hours. Children are often turned out to keep the house quiet, while other respectable parents, fearing the streets, keep their children in too much. In these centers musical and military drill, dancing, gymnastics, dolls, tea parties, cobbling, basket making, and on Saturdays cricket and football matches are conducted. Birmingham "Street Children's Union" is a network of 53 clubs and 300 or 400 helpers aiming to improve the conditions of boy and girl life.

The Children's Happy Evenings Association (London, 1889) provides recreative evenings in Council school buildings for an average of 30,000 weekly, attending these schools. Its various branch committees affiliate with provincial associations. The evening programme usually begins with a march, then the children disperse to various rooms, selecting the occupation that appeals most to them. There are separate rooms for toy-making and painting, play with dolls, a noisy-games room, a quiet-games room, a boxing room where boys are taught the manly art of self-defense, tea parties, stories, drills, dances, costuming, occasional trips to the country, etc.

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[1] The Field Day and Play Picnic for Country Children, by Myron T. Scudder. N. Y., 1908, 53 p. Tentative report of the Committee on A Normal Course in Play of the Playground Assoc. of Am. N. Y., 1909, 288 p. Education by Plays and Games, by George E. Johnson. Boston, 1907, 234 p. Play, by Nina B. Lamkin. Chic., 1907, 91 p. Equipment for a School Playground, by Henry S. Curtis. Hygiene and Physical Ed., Oct., 1909, pp. 708–717.

The best study ever made of the spontaneous plays and games of a city was that of T. R. Crosswell, Ped. Sem., Sept., 1899, and showed an amazing number of them arranged by age curves. The same city (Worcester, Mass., pop. 140,000) now has an admirable system of play, bringing together some 5,000 children at its festival. It will therefore be interesting and possible to study the effects of this organized work upon the spontaneous play activities that preceded.

For the last eight years New York school property has been utilized for vacation schools, playgrounds, and evening recreation centers. During 1908–1909 twenty-two evening recreation centers were maintained in the Borough of Manhattan, one in the Borough of the Bronx, and seven in the Borough of Brooklyn. The average nightly attendance was over 12,000. There were 575 active literary clubs and so many applications for rooms and nights that consolidation became necessary. Athletics, story telling, folk dancing, simple dramatic entertainments and games all find a place in these centers.[1]

Milwaukee has a children's betterment league to improve conditions affecting child life in the city and country, to insure their protection from injustice, evil, suffering, to coördinate effort and make large plans for the future, to effect legislation, deal with their employment, etc. Monthly meetings are held. The league is a clearing house for all organizations affecting child life and holds six general meetings during the year.

Newark, N. J., has a children's bureau, made up of joint committees of child institutions, to effect coöperation and bring greater efficiency, economy, and completeness in children's aid work, holding that it is better to help the child than to wait and punish the fallen man. The bureau registers, investigates, informs, helps in child-placing, etc.

During recent years many types of *organization* have grown up *designed to supplement the work of the school* committee, teachers, and other association, to rouse interest and bring parents and school into closer touch. Some of them are only to aid teachers and school officials, some to supplement their work, while others aim at distinct reforms and are critical, and a few even antagonistic to the *status quo*. Of the many, mention of a few types must here suffice. The Public Education Association of Philadelphia, nearly thirty years old, assuming that eternal vigilance is the price of good schools, holds public meetings, receives complaints and suggestions by teachers, advocates an independent school tax, levied by the school board, would reduce overcrowding, the waiting list and half-timers, and its members attend meetings of the school board. The New York association does home and school visitation, supports paid visitors whom it sends to homes and principals, and in many ways tries to arouse public interest, organizes and proposes topics for parents' meetings. The Boston Home and School Association also has various committees, including one on children's reading, another on the anti-cigarette movement, while a private Hawthorne club there gives prizes to children for the best composition in answer to carefully prepared questionnaires designed to test their knowledge, originality, command of English, etc. Various Southern States have recently formed school improvement clubs and leagues, most of which interest themselves especially in rural schools, one with the motto, "Urbanize the country and ruralize the city." Ohio has a school improvement federation of teachers officered by young men somewhat impatient with the "clique of obstructionists and educational standpatters." Its members, among other things, seek to inform each other of the best advance movements in other states and even countries. The Chicago Teachers' Federation excludes superintendents, but strives to emphasize the citizen's as well as the teacher's side of educational questions. The England and Wales association, besides other activities, pensions old teachers and cares for orphans. The English Parents' National Educational Union (since 1891) seeks chiefly to educate parents, publishes a parents' review (since 1899), gives lectures, issues literature, and supports a House of Education to train governesses. The English National Home-Reading Association (since 1888) publishes a reading review, lists of books it recommends, and a young people's magazine, advocates reading circles, and in general seeks to counteract the influence of bad and to increase that of good books. It requires supplementary and recommended books and gives certificates to those who read a certain number of books. The Union calls itself the people's university and assumes that reading is a fateful gift which needs great care in the direction of its tastes. The school has almost abolished home reading for most children. The Union correlates with school work. Children are encouraged to tell back what they read. There are 500 reading circles in London schools. Recommended books are often provided at half price for those who wish to buy. Tutorial help is provided to suggest, explain, and answer questions. Magazines are distributed, leaflets issued, etc. In many parts of Germany scores of the most influential people are often enlisted at least in some advisory capacity, perhaps as counselor for the school in their vicinity, and a personal interest is thus secured.

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[1] An. Report of City Supt. of Schools of the City of New York, 1909.

Thus, the public school in many places owes a great debt, both direct and indirect, to such spontaneous organizations. They have often been instrumental in eliminating politics from school boards, and the reduction of the number of members, a movement which has lately swept over this country, is largely their work, as is often the substitution of election on a ticket at large, or appointment by the mayor of members of the board for the old ward system. In many places the most active boards of these outside associations have been later elected to the school boards. They have often upheld good men and measures and caused the defeat of bad ones; have beautified schoolrooms and grounds; opened both, especially the latter, out of school hours; helped in playground, curfew, and excursion movements; organized mothers' meetings in ward schoolrooms where poorer and more ignorant mothers have been both helped and taught; brought citizens of both sexes in a community together during the winter, who, although neighbors, would never otherwise have known each other; aroused and informed the press; introduced new texts and courses; sometimes intervened to check specific abuses, etc. Diverse as are these aims and types of organization, it would seem that the time has now come when they ought to have a state, if not a national, organization to profit by each other's failures and successes, to pool knowledge and encourage one another. Some have not only salaried visitors, but nurses, and in some communities the very best ability and the highest public spirit are enlisted in this work, and occasional marked eras have been inaugurated and a new public spirit created, and sometimes even donations attracted. Various new departures have been tried out and demonstrated to the satisfaction of taxpayers and voters. While in a few cases it must be admitted that the fact that such organizations have no official authority has been a source of weakness, this fact itself can be and more often is a source of strength, so that the cases where they have lapsed to formality are rare. The needs of localities differ greatly and all depends on the sagacity and boldness of one or at most a very few leaders with clear vision of what to do and how to bring things to pass. Where reforms are needed, such organizations are often the very best means of effecting them, and always and everywhere such associations constitute a splendid influence to operate against the iron law of monotony, routine, and tradition so apt to dominate in public-school matters. Such organizations should and ere long will exist in every vital and truly republican democratic community. All this needs an organ of focalization on the school, like that in France on the family.[1]

A Children's Care Committee (England) is attached to every necessitous school (Act of 1906), although relief committees have existed since 1899. It usually meets at the school, perhaps fortnightly, and considers lists of pupils whom teachers think need visiting. Some children are placed on the dinner, some on the milk, some on the cod-liver-oil list. Parents of some can but do not feed them properly. Some here overwork, some need sleep. Although there is great local diversity, visiting is pivotal everywhere. Different food is often prescribed for different children. Boots are either donated or given out to be paid for on installments. Often committees stress thrift here, recreation there. A course of study is provided for workers. Boys from fourteen to sixteen are sometimes sent to the country to work, etc. Labor exchanges are utilized. Very great stress is laid not only upon the selection of the menu, but upon the methods of cooking the articles.

One of the most general impressions from the survey of all these agencies is that there are so many things that need doing for children to-day that the school, home, and church do not do. If the influence of the home and the church is relatively declining, the school is extending its activities, and yet these organizations have not only grown, but are learning far faster than the school which does not meet the requirements of modern life, or else these supplementary organizations would not have multiplied so rapidly. Again, every one of these agencies needs child study or genetic psychology, for this alone can make their work scientific or professional. Indeed, this is their most urgent need for economic effectiveness. Once more we see the immense advantage which Catholicism has in the gratuitous and devoted services of nuns and celibate teachers, priests, and lay brothers who have renounced all sex, family, and financial interests to devote themselves without pay to the welfare of the young. We can understand the sentiments they often express toward those who are salaried or otherwise paid to teach virtue and to do works of charity, instead of being animated solely by love of the young and of the church. The special methods of this vast and venerable institution should be studied by every social worker and teacher, Protestant though he be, for though it may be often a little behind in hygiene and the applications of science, in nearly all other respects it has very much more to teach to than to learn from those outside its pale. Once again, no one institution, so far as I know, exists in the world to-day that was devised to meet the needs of exceptionally gifted children who would profit by special methods adapted to them more than does the subnormal, perverse, or average normal child for whom all these agencies were created. On the whole, there is perhaps no movement of modern times that expresses such confidence in the effects of environment if carefully constructed and controlled to overcome the fateful influences of heredity in contrast to which Weismannism, which discredits the former and makes the latter all, has little place in the psychology of charity. If the soma and all the influences that can modify it cannot affect the germ plasm, then modern philanthropy can never hope to do much for future generations, but can only ameliorate conditions for individuals.

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[1] Revue de l'Education Familiale is an organ of a national league for "the popularization of the practical sciences of pedagogy and sociology in the family."

Agencies like the above, both those for defective and those for normal children, are for the most part entirely outside and independent of the school. Unlike the latter, they are mostly supported by charity, and spontaneous donations carry with them a very different attitude toward their object than does taxpaying toward the institutions it supports. Thus, philanthropic institutions are in vital touch with their *clientèle.* Again, they are vastly more diversified and also more responsive to changes in the environment. For these reasons they are more interesting and stimulating to study than the school, and should be included in the training course of every teacher, for they are now very essentially part of the larger, newer pedagogy. All children are affected by some of these organizations, and not a few by many of them. A large number are of recent origin, showing how fast civilization is outgrowing the old *laissez-faire* doctrine and how strong and widespread is the movement among mankind to take the control of human, and especially child life and all its conditions, into their own hands. Together with the schools, these agencies constitute euthenics which seeks to control the environment and the present generation as eugenics would control heredity and the future. The world is thus grappling as never before with the fundamental problems of life, health, happiness, reproduction, disease, and society, and has new and higher ideals than ever before of the possibilities of human nature, not only in the way of removing handicaps, but of attaining higher planes of development. The next great step toward which everything seems inevitably tending is to coördinate all these agencies, including the school, into one comprehensive organization or department which shall be municipal, state, and national, for the conservation and maximal development of childhood and which shall attract to its management the very best talent and training which the world can afford, for we can not too often reflect that the very best test of every human institution is what it contributes to bring the rising generation to the completest maturity of soul and body of which it is capable, because all human activities when reduced to their ultimate instinctive psychic elements, originated in and consist in impulses toward nest-building, home-making, or providing better conditions for posterity. What each agency contributes to this end is the standard by which it is measured. This determines its human value or worth as an object of desire. As against the interests of the rising generation, adults have no rights, for the individual can render no real service, save to the race.

CHAPTER XIII

SUNDAY OBSERVANCE

The origin of the seven-day cycle and its utility—Its relation to sex—The way people spend Sunday and the way they should—The psychology of worship, especially as relates to the Sunday school—Meditation—The meetings of the sexes—The present status of the Sabbath question in this country and Europe—Sunday laws—The Sunday newspaper—The ideal evening service.

THE origin of all seventh day observances lies far back of Hebrew or any other history and is found in the worship of the moon, our nearest celestial neighbor, which the heart not only of the lover and the poet, but of every man, woman and child, still adores. Next to day and night and change of seasons that the sun controls, the lunar month of 28 days is most marked in the life of man and has cadenced its rhythm into the physiology not only of women, but of men, and made cycles that are more or less marked in disease, in crime, suicide, and insanity, so that our life, body and soul, is punctuated with its periods. Its four quarters, new or crescent, half, full and reverse crescent, the day of each evoking special devotions in ancient India, Egypt, and wherever lunar worship has prevailed, made the week observed among nearly all primitive people long before the Jewish race appeared upon the stage of history. Religion, which measured time by seven-day groups, has been not only one of the oldest but one of the most universal forms of pagan piety, and this cult has been elaborately developed with deities, temples, sacrifices, feasts and festivals among every one of the great nations with which the Jews came in contact from the time they first became a nomad tribe. About the middle of the ninth century B. C., in their very earliest recorded code, the Israelites adopted the seventh day and were exhorted to keep it holy, especially in the critical seasons of seed sowing and harvest, when primitive man always felt most deeply his relation to the divine powers that presided over crops on which life itself depended. Just before the exile, the people's code advocated Sabbath keeping for a new reason, viz., because God had brought them from the Egyptian captivity, so that it now became a national independence day. It was man's day, but with no penalty for violation. Still later Ezekiel commanded its observation for another reason and gave it another meaning, viz., as a sign between Jehovah and Israel, so that it stood for the great covenant. Finally, after the return from Babylon, rest was enjoined, because on that day Jehovah rested from the work of creation. Its new name—Sabbath—literally means rest, and it was interpreted as applying not only to man, but to beasts. It was now God's day and its violation was made penal. Then came Jesus spiritualizing the rabbinical Sabbath with the precept that it was made for man and not man for it. After His death still another sanction was added, for it became the day of the resurrection. Henceforth the Jewish Sabbath was transformed and became a day of memory and of joy for the outpouring of the Holy Spirit which marked the beginning of the world-wide promulgation of the gladdest of all glad tidings, that death, the great enemy of man, was conquered. The Council of 54 A. D. expressly exempted Gentiles from the laws of Moses and sacrifice, and the observance of the day was not legally mandatory for a time until Paul established the Lord's Day as a day of worship and made it to some extent a new institution not resting on the fourth commandment, but on the divine law. It was a day sacred to Jesus. Not until the fourth or sixth century was rest from labor required, and even then its sanctity was for some generations no greater than that of other holy days. It was the reformers, before and after the Reformation, who had to seek another authority than that of the Church on matters of religious life, who went back to the old Jewish Sabbath, and thus in course of time the Puritan Sabbath, under the shadow of which we still live, arose, while the Sabbath of continental Europe remains more nearly that of mediæval Catholicism.

Thus the seventh day has persisted through a very check-ered history, at first, a purely lunar, a pagan day of feasting and joy, adopted by the ancient Jews, made sacred first to their independence, then to the covenant, then a rest day with most usual activities tabooed, Jesus' rescue of it for man, its transformation into a glad memorial of the resurrection, then of the Holy Spirit, later, the slow evolution of worship upon that day, its gradual emergence into prominence above that of other sacred days, and last of all the Puritan Sunday, with its restrictions and rigid observances, that sought to restore that of the Talmud.[1] From this very meager outline we can realize on what deep and ancient and manifold foundations our Sunday rests, what diversity of both sanctions and interpretations it has passed through in different ages, sects and lands, and all these must be borne in mind by all who deal with the great problem of its current interpretation. This brings me to the sole point which I wish to urge, which is, that if Sunday had no history and there were no divine sanctions, no fourth commandment or even Bible, church or Christianity, we should still need to observe one day in seven for reasons based upon the nature and needs of man's body and soul, and that it is a vital point of race hygiene for all peoples who would attain or preserve the higher levels of civilization.

I cannot speak here of those antique sex prescriptions and taboos or of the nameless phallic rites so elaborately associated with many of the old forms of moon worship, save to say that the seventh, fourteenth, twenty-first and twenty-eighth day have, from time immemorial, been held peculiarly sacred to posterity, to heredity, to love in its higher, though, alas, too often in its lowest, forms. Thus among the most ancient associations transmitted to us from the past are those of the day hallowed for each generation to the cloud of witnesses which in the future are to spring from their loins. It is not without significance in this connection that several eminent biologists have suggested that for wedded adults the great theme of the transmission of life, the evils that threaten it and the duties that it enjoins, might be a fruitful theme of Sunday meditation, for this function is at bottom the supreme test of the value of every human institution and of moral good, for here virtue and vice have their chief citadel, while just now these themes are being everywhere forced upon the attention of educators, philanthropists, clergymen and laymen with a plainness and urgency without parallel in history.

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[1] Scientific Basis of Sabbath and Sunday, by Robert John Floody. Boston, Turner & Co., 1906. 359 p.

As a day of rest, Sunday is also now reinforced for the individual as never before. Just in proportion as life grows tense and strenuous there is a weekly as well as a daily fatigue, and even the normal night's sleep does not wholly repair the wear and waste of the day, so that the curve of recuperation sags as the week of working days advances. Over and over again employers of labor have testified to the economy of the seventh day of rest, that the quality and quantity of industrial outputs were increased thereby, despite the initial Monday decline in efficiency often also noted. As long ago as 1853, 641 British physicians and many other societies of learned men memorialized Parliament that both brain and muscle workers needed about one day in seven for supplementary rest in addition to that of nights, in order to maintain their maximal vigor, the tenth day which the French revolutionists substituted being too long and the fifth day being too short an interval. Fatigue is one of the most insidious foes of modern life. Exhaustion weakens all the defenses of the human system which nature so abundantly provides against the hosts of bacteria always entering it, and which a rested body can so easily destroy under usual conditions. Fatigue is the mother of many diseases, some of which are only intensified forms of it. Nerve and brain stress and manifold forms of neurasthenia are greatly augmented by the growing specialization of industry because a single part of the organism is overworked and other parts go without sufficient exercise. Thus, as one of its functions, Sunday must relieve the overworked and set into action the overrested parts and functions of our frame. Sunday must thus bring relief from the narrow rutty activities of the week, and let us be again whole men and women and thus it should make for breadth, humanistic culture and become a hygienic philosophic institution. Rest for healthful people is less idleness and inactivity than it is change and recreation, for diversion positively helps to the restoration of the overwrought and frayed elements of soul and body.

In all the answers to stated questions which Hylan[1] collected from all sorts and conditions of people as to what they got and wanted from Sunday, rest and recreation stood first, and hardly one desired to continue the usual week-day vocations. Most wanted to look forward, backward and around in a larger, higher way, to rise, to front the great elemental questions of life, duty, family and social relations, to forget sordid cares and reinforce the higher life by communion with the best factors in their environment, to be again whole men and women; and whole means healthful and holy.

To this end it seems to us plain that libraries, reading rooms, museums, art galleries and all parks, and every possible access to nature should be open on Sunday, at least a part of it, with all suitable precautions, and that Sunday newspapers, which are truly such, and not merely enlarged editions of weekday journals, should be favored and not discouraged; that lectures, concerts and good music indoors and out of doors, in its season, should be provided, and that the purer forms of recreation and exercise are entirely permissible, for these make for race advancement, while, of course, everything that tends toward deterioration, moral and physical, should be rigidly suppressed. The so-called necessary work of steam and electric railroads, mails, freight transportation, unloading of, at least, all but perishable cargoes, harvesting in seasons of stress, most theatrical exhibitions as theaters are, all the crasser amusements and everything that tempts to evil should, of course, be minimized, and if in Sunday legislation the choice is clearly between two evils, we should often not hesitate to choose the lesser, rather than to forbid both by laws which it is impossible to enforce. The great and growing majority who do not statedly attend church have their rights, and as we cannot revive the blue laws, we must not legislate with the indirect design of corralling outsiders into the church by making them uncomfortable outside it.

For this class and for all discussion of the question, it is important to consider what it is now the custom to call Sunday feeling. Copious returns from large numbers of people show

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[1] Public Worship: A Study in the Psychology of Religion. By John P. Hylan. Chicago, Open Court Pub. Co., 1901, 94 p.

how deep and strong is the instinct to make the whole regimen of Sunday as different as possible from that of the week. Many specified as Sunday charms, freedom from all slavery to the clock, better and more leisurely toilets and meals, the hush of noise on the deserted street, the greatly intensified charm of the sky, sunshine, trees, fields, pleasant morning anticipations for the day, more zest for reading and perhaps study, converse with friends, calls, visits, music, correspondence as well as rest pure and simple, for body and mind. These supervene of themselves to most on Sunday morning, and surely all those who cultivate these things in any wholesome way are with us and not against us.

But on this foundation, which must be kept deep and strong, Christianity has built a magnificent superstructure of worship. It has reared homes for God where He keeps open doors to receive all guests—from the magnificent cathedral with its lofty arches suggestive of the groves, God's first temples, to the little churchlet with its spire pointing the soul upward. Until I read these intimate confessional returns from hundreds of Christians of every name and all parts of the land, I never realized how every item of every type of Sunday service, even to its minor accessories and details, had laid hold of man's very heartstrings. The pealing bells which seem to say that all is well in heaven and on earth and calling, calling to prayer; the walk or ride to and from church, like no other because nature seems so new and divine; social intercourse when friends come more close than on other days; the dim religious light often suggesting twilight and forest, the two most healthful of all environments for worship; the sacred symbols and mottoes, perhaps pictures and crucifixes, the sacred altar or desk, the fluted organ and the pealing tones of music, which is the language of the heart and not of the head, like speech; the stately vestments, the choirs and perhaps processionals and the incense from the swinging censer, the bowed head and bent knee, the reading and perhaps intoning of litanies, responses, sacred texts and prayers hallowed by the association of centuries; the sacraments of baptism, signifying the washing away of sins, and of communion, which makes us flesh and blood partakers of the death and resurrection of our Lord, the ineffable charm and sense of betterment that all and each of these bring to sympathetic souls is something above the present reach of all the theories of ethics or the psychologies of religion up to date to explain or even to comprehend. Even the collection, the attenuated relic of sacrifice of animal and once even of human victims, rebukes selfish greed and stimulates sympathy with need and pain and love for our fellow-men. These are the most efficient agents the world has known for making the individual feel his solidarity with the race and his kinship with God. At their very lowest they are masterpieces for stimulating man upward and onward toward the higher life of the superman who is to be later far beyond what we have attained unless optimism, evolution and prophecy are all false. What a repertory of methods and instruments for the work of the divine pedagogue, as Tertullian called the Holy Spirit, and how they each and all lay hold of the past, the present, and the future, and compel communion with the oversoul that guides to all truth, beauty, and goodness! How it all incites to self-examination and, at least, inner confession, showing forth the whole life of the body and soul in the perspective of eternity, where nothing survives save the measureless distinctions between good and evil!

As to the clergyman in his sermons, which to many of us Protestants constitutes the heart of the service, this is not the place nor I the man to speak, but I would have both virile and practical, saturated with idealism, both moral and religious, for there is nothing so practical as the ideal. The preacher must know the human soul and Scripture, the inspired text-book of the human race in psychology and ethics, bring forth all the positive but never any of the negative results of the higher criticism and of science, always fulfill and never destroy, with more of the old denunciation of sins of appetite, greed, selfishness, lust, and lawlessness that abound in every community; not be always silent on current events for fear of sensationalism, but intent also on building up the kingdom of righteousness with the soul that chiefly needs quiet personal edification; able to preach with fervor and in proper season, to command waves of religious revival and also to preach the duty of perennial personal culture; able to sway multitudes by the matchless story of the cross or to persuade the few academic doubters who are passing through the stages of mental enfranchisement to broader views; eloquent to men as well as to women, a scholar, yet all a man, throbbing with the enthusiasm of a larger and higher humanity. Of course such an ideal does not exist, and the theological seminary of our day and land is far from able to rightly equip such an one, but that both will come I have not a shadow of doubt or fear, because we need them, and in the story of the world's history the hour always sooner or later brings the man.

The problem of the child and youth as related to Sunday is not solved by the Sunday school or the children's second Sunday in June. Urban children especially who have led the sedentary life of the school during the week would be far better for more physical exercise than they usually get on that day. Why should the school yards in crowded districts and the hundreds of playgrounds now being everywhere established not be open, at least afternoons, and especially for younger children, and why should indoor activities like cutting and pasting pictures, many of the plays and games from Johnson's list of hundreds, some of which are relics of primitive religions, not be approved? Why not well-conducted excursions and picnics to get to nature? I think the burden of proof is now with those who object. If the children's theater presents only biblical or purely ethical dramas, why close it on Sunday, especially where children are likely to do worse without it in a city like Greater New York where there are 1,500 nickel and dime shows, lacking but in great need of, moral censorship, many of which are open to all on Sundays? Surely there should be plenty of walks and talks and nature lessons, and collections of natural objects and specimens should be favored. In Germany, nearly or every kind of manual training, industrial and technical schools for the young who are employed during the week are open on Sundays, when the best work is done, and we must not forget in this connection that the original Raikes' Sunday school taught almost entirely secular occupations and day-school subjects. The children's room in every public library should, of course, be open under proper supervision. As family day, there should be plenty of home instruction and best of all, stories, if practicable, told by twilight, moonlight, or firelight, for nothing is more educative, and tales constituted once the sole material of education, so that this is an important element in restoring the lapsing functions of the home. We should, of course, revise and reform the Sunday school and try the Kent plan of one good professional Sunday School superintendent in a city teaching successively the teachers of each denomination educational principles in general and how to do their special work better. All these things and more, too, there is room for, not to the exclusion of, but in addition to, church-going, which takes but a small part of the time, the good old habit of which, now unfortunately becoming more and more out of fashion, should be restored.

In organizing the scientific Sunday of the near future, we should always and everywhere accept the meliorists, accepting the relatively better where we cannot get the absolutely best. Perhaps we must welcome the half bad, if its sure alternative is the wholly bad, and sanction almost anything that is better than that which children would otherwise do, and try to make it ever better, compromising with evil, if we are unable to eradicate it.[1]

Finally, Sunday is no longer the ghastly day it once was for adults and especially for children. Never was rest and recreation so cryingly and so physiologically needed as in the strenuous American life of to-day. Never has the church in its service had so many other alluring, if not seductive, outside attractions to compete with. Never was the work of reinterpreting rights, duties, and permissibilities of Sunday so vast, delicate, complex, and yet so imperative a task. To solve it completely demands nothing less than to draw lines between the best and worst in all kinds of lives and communities with countless personal and local modifications and adaptations and adjustments. The day when a few uniform iron laws equally binding upon all everywhere sufficed is also forever gone. We must now look not only to the sanctions of the past, but also to the needs of the present and future. There is no one best way of spending Sunday for all, but many diverse ways—some best here, some there, and some not wholly good must be provisionally welcomed till better ways are practicable in order to save from worse ways. Places where mild drinks are dispensed are better for all who would otherwise yield to gross intoxication, and we have suffered and the devil prospered long enough from the old maxim of uncompromising reformers—all or nothing.

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[1] See vol. 1, p. 136, on how to spend Sunday, for amplification, in the family.

More than any other day of the week Sunday has, because of the at least partial release from everyday drudgery, from time immemorial, been the day when the sexes see most of each other, and every opportunity contributing in any degree to make their relations pure and innocent should be wide open, and every environment that makes for temptation to vice should be reduced to the minimum on that day and evening. In our personal regimen for the free parts of Sunday there is much to be considered in the precept to avoid habituation and routine and vary widely and often, perhaps each week, as circumstances and mood incline, our mode of spending it, for the day must be kept sacred to freedom, and uniform all-day Sunday habits are to be avoided.

The suggestion of an hour of solitude and meditation, too, not for children and perhaps not always for youth, but for all adults, merits careful consideration. More or less solitude has always been one of the best resources of great souls who have often been nourished in the desert or the mountain, for it inclines us to front the basal facts of life, duty, and destiny alone with God and His nature, its first revelation. Forest shade, the high mountain views, the sea, the shore, flowers, birds, other wild things that live, sunset, twilight gloaming, wind, clouds, storm, thunder, and above all the eternal stars speak Sabbath peace to the soul that exposes itself to the contagion of their influences alone. Or if the one impulse from the vernal woods that can teach us much, or from the "flower in the crannied wall," which the poet says can tell us what God and man are, the celestial communion that made the undevout astronomer called mad, is denied us, then the little corner with some little book or chapter of God's word, or of man's best, or an hour alone in the four walls where the dark third of our every twenty-four hours is spent may recruit our jaded moral impulses and shed regenerating influences over the week to come.

And I would add a plea for at least one church service of some kind for all, of whatever creed or no creed. Even dressing, going and coming, bells, incidental meetings with friends, that strengthen the social bond, giving, instead of the weekly lust of getting, all help by lifting us out of wonted routine and bringing the grateful rest of change and pulling new stops and playing unused registers in the soul's organ, while bells, hymns, prayers, Scripture, preaching are all pregnant with unconscious and perhaps still deeper and more potent unconscious influences that help on the great momentum of evolution, the push upward that God and nature have so deeply implanted as the most precious thing in every human soul; for without some church home, some of the best and highest things in the soul remain homeless and vagrant.

In January, 1906, the workmen of Alleghany County petitioned 800 firms to avoid all unnecessary work on Sunday. Some 400 religious organizations and 30 societies of workmen have joined this movement. It was caused by a sense of the workmen that they were more and more compelled to toil on that day and that they could do more and better work with the old Sunday exemption restored. The petitions urged that those whose services were needful on that day be given another week day for rest, and that along with the encroachments of employers upon that day lawlessness and a weakening of moral energy has been caused.

France has never had Sunday legislation, and the first Sunday movement was on the occasion of the Paris Exposition of 1889, at which a National Congress of Weekly Rest, the word Sunday being barred by the government, was held. It was presided over by Senator Say, lasted four days, and the stenographic account of its proceedings make a volume of 400 pages. To this congress the late President Harrison wrote that even were man an animal and quite apart from Scripture, weekly rest was needful, and Gladstone's letter stated that he ascribed the full possession of his faculties at his advanced age in no small degree to the habit of Sunday rest. A propaganda was started and a People's Union for Sunday Rest formed with Jules Simon at its head. In October, 1900, the government, assured of the purely humanitarian purposes of the movement, consented to an international congress which was attended by over 400 members from many lands representing many associations and which lasted four days. Suppression of Sunday freight trains was effected ten years before in Switzerland, and since, partly as a result of this conference, in Prussia, Bavaria, and Belgium. This has been strongly urged in France where mail delivery stations are now closed. Many of the great shops on the Louvre have been either closed or most of the clerks released and the increase of receipts on Saturdays and Mondays is said to fully compensate the loss. In France, there are three parties upon this question. (1) Those who would invoke the government to intervene. (2) Those who wish legislative action later only when public opinion has been sufficiently aroused, and (3) a small group who oppose all official action.

Lord Avebury proposed a new Sunday Bill in 1905, which was to permit the sale of milk and cream all day, and bread, fish, cooked meats and vegetables up to 9 A.M. in the slum districts where, especially in hot weather and in crowded tenements, such provisions cannot well be kept overnight without danger of contamination. In this and other matters he proposed to admit some degree of local option. The bill also proposed to increase the present fine for Sunday opening which was only five shillings and was no deterrent for larger dealers, and to make it cumulative. If one trader, perhaps, a newcomer, opened on Sundays others felt compelled to do so, however much against their will. The House of Lords, however, defeated this bill on the protest of the Lord's Day Observance Society, while the Lord's Day Rest Society advocated it.[1] Sunday trading is on the increase, both in this country and in Great Britain [2] and where there are Sunday laws they are rarely enforced and the penalty is often only nominal. Sunday-closing laws are probably favored to-day by most tradesmen. At any rate, in England, butchers, barbers, marketmen, 300 associations in all, have petitioned for Sunday closing, and various trade unions have urged it. The trouble, of course, is that a dealer in a certain kind of commodity cannot afford to close if others in his own line do not do so, too. In England, the Jews most offend Sunday laws, but many of them close on Saturday, opening only at sundown. The best laws now make quite a list of articles, mostly necessities of life, that may be sold. Since Bauschwinger's discovery that after a permanent set has been produced in metals under heavy stress, for instance in bridges, rest increases the limits of elasticity, it has been abundantly shown that fatigued metals have reduced elasticity. Rev. Percy Grant, of New York, insists that in the progressive socialization of the church, which lays very heavy burdens upon the clergymen, the need of prolonged vacation rest is greatly increased. If Chicago is run as a wide-open town, the destructive influences of the saloon will naturally be far greater on Sunday than any other day. An open and above-board issue and a frank campaign ought to lead to a more scientific discrimination between industries that are essential and those that really promote rest.

Students of religious conditions in England are concerned over a notable decline in Sunday observances and family worship. The Lord's Day is a holiday and is too often spent in a way that causes weariness. Sunday rates and trains are now in many places discouraged and even discontinued. Some have advocated legislation in this direction.

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[1] See Lord Avebury's article in the Nineteenth Century, September, 1905, p. 434, and Peake's argument against it, *ibid.*, November, 1905, p. 735.

[2] The Sabbath for Man, by Wilbur F. Crafts. Washington, D. C., Internat. Reform Bureau, 1902. 672 p.

A new Sunday law went into effect in Canada, March 1, 1907, and among its provisions was the prohibition of sensational Sunday papers and practically indeed of all. The bill was openly opposed by the railways and also by the Jews and Seventh-Day Adventists. By this law, not only are Sunday excursions and all work forbidden, but all shunting with yard engines is not allowed between 6 A.M. and 8 P.M., except for cases especially defined. About 100,000 men have been released from toil one day in the week by this law. By a vague clause slipped in, provinces were given certain powers that would to some extent nullify the action of this law, and it has been weakened in Quebec and may be so in British Columbia, but all the other provinces have indorsed the act and have taken measures to enforce it. This is held by the friends of the Sunday movement as a great step in advance.

Justice O'Gorman of the Supreme Court of New York in December, 1907, vetoed Sunday shows in a way so comprehensive as to bring about suddenly a genuine Puritan Sunday, for concerts, peep shows and penny arcades were also placed under the ban. These shows are not conducted for the benefit of the public, but solely for profit estimated at $1,000,000 a year. The city, as a whole, does not wish for merely variety shows. The board of aldermen, however, who have the power to do so, have modified this law, which has been a storm center for some time. The prohibition of Judge O'Gorman was based upon an investigation which showed that there were 28 theaters and 16 concert halls open in New York, besides the one-cent shows, and the protest was made, in part, in behalf of the actors and actresses who were obliged to play seven days a week. Some of those who run these places boast that they draw young men from the street and the saloon.

The Unitarian clergyman, E. P. Powell, of New York, thinks it absurd to establish one kind of morality six days in the week and another kind for the seventh. He deems it waste of moral force to keep up the semblance of a sacred twenty-four hours. Opportunities for rest should be enlarged; churches should have playgrounds and gymnasiums open on Sunday. When Agassiz first came to America the worst feature of our society, he thought, was the restrictions of Sunday, for he had been accustomed to hear a sermon in the morning and to play ball with his pastor in the afternoon, and even John Calvin sometimes adjourned his evening service to go with his people to a theater, better, to be sure, than ours. Powell pleads for the right to play golf in the green fields on Sunday. The church must give something better than the hard work of listening to illogical sentiments. It is not wise to put handcuffs on for one day and take them off for the other six. Every Sunday enforcement bears heaviest upon the poor laborer. What is right on Saturday is, he says, right on Sunday.

In a recent article on Sunday Laws in the United States, the following classification according to States is made:

"The first class is composed of those whose laws are framed according to the British model and prohibit on the Lord's Day labor, business, or work of one's ordinary calling only. This class includes Georgia, Indiana, North Carolina, Rhode Island, and South Carolina.

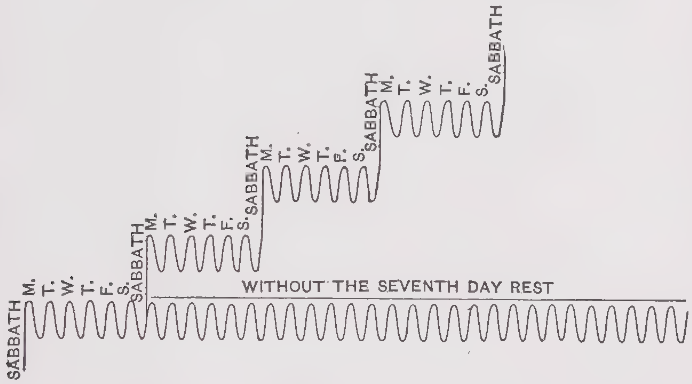
"In the second class are to be placed all those whose Sabbath laws contain strong and comprehensive prohibitory clauses forbidding labor, business, amusements, fishing, hunting, etc., and make few exceptions to the operation of the law besides works of necessity and charity. This class includes Arkansas, Connecticut, Delaware, Florida, Indian Territory, Iowa, Kansas, Maine, Maryland, Michigan, Missouri, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, and Utah.

"The third class embraces those whose prohibitory clauses are materially weakened by making many exceptions besides works of necessity and charity. Some of these exceptions are here noted. Alabama, Kentucky, Mississippi, Texas, Vermont, Virginia, and West Virginia make an exception of railroads. New Jersey excepts Sunday trains and legal notices in Sunday newspapers. Massachusetts and New York permit the sale of tobacco, the printing and sale of newspapers, and the latter State permits also the sale of fruit and confectionery. Minnesota allows the printing and sale of newspapers. The Wyoming law makes exceptions of newspapers, railroads, telegraph companies, news depots, farmers, mechanics, furnaces, smelters, glass works, venders of ice cream, milk, fresh meat, and bread. The law of Louisiana excepts newspapers and printing offices, bookstores, public and private markets, bakeries, dairies, railroads, theaters, and other places of amusement.

"The fourth class includes those States the prohibitory clauses of whose Sabbath laws are inherently weak. The laws of Colorado, Illinois, and New Mexico prohibit on the Lord's Day only such labor and amusements as disturb congregations and families. Business is not mentioned. New Hampshire forbids such secular business or labor as disturbs others. Montana prohibits neither labor nor trade. Nebraska does not prohibit trade. Oregon does not prohibit labor. Washington does not prohibit labor, and weakens the clause prohibiting crimes against the public peace by adding, after the enumeration of 'riot, fighting, or offering to fight, horse racing, or dancing,' the clause 'whereby any worshiping assembly or private family is disturbed.'

"The fifth class embraces those that have no Sabbath laws. This class includes Arizona, California, and Idaho."

In this country time is so precious that, though the doctor advises and the wife and children beg, the head of the household feels that he has no time for recreation. The ideal Sunday demands a change of viewpoint with regard to the ends of life, and the Sunday question for everyone is how to use the Sabbath to the very highest advantage of one's self, family, and society. This cannot be done by combining Thanksgiving, Christmas and the Fourth of July, or junketing, but one must at any rate spend Sunday so as to come to work on Monday with a fresh mind. No one can decide for another on the rightness or wrongness of golf, tennis, boating, riding, communing with nature, etc., but it is a serious question which each must determine for himself. There is no question to-day of surrendering the Sabbath or of Sunday trains, mails, newspapers, etc. The church no longer has the chief word to say on this subject.[1] It is, however, an economic institution and there is some justification for Hegler's diagram. We have no less outgrown the views of Trevelyan,[2] who, to be sure, was progressive for his day in recognizing the difference between the Christian Sunday and the old Jewish Sabbath and in urging that the heavy atmosphere that has pervaded its Sunday should be cast off and that it should be made a day of joy and recreation rather than a day of unusual restrictions.



Hegler's Diagram showing Effect of Seventh Day Rest on Vital Energy.

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[1] As is assumed by W. F. Crafts in his Sabbath for Man. Washington, D. C. Internat. Reform Bureau, 1902, 672 p.

[2] Sunday, by W. B. Trevelyan. Lond., Longmans, 1903. 307 p.

The prodigious development of the American Sunday newspaper was made possible by several causes, cheap paper and illustrations, the linotype, lessening telegraph rates, new syndicates, and advertising. Some dailies who did not desire to do so have been forced to Sunday publication by the demands of their advertisers. Indeed, Sunday is in a sense the day when the advertiser, whether he be storekeeper, promoter, palmist and spirit medium, or a candidate for marriage, has his day. The syndicate stories are often supplied to a large number of papers absolutely without cost but at great profit from the advertisers to their purveyors. Most Sunday newspapers make absolutely no allusion to the sacred character of the day. The avidity with which this material is devoured is shown by the fact that several of these sheets claim a circulation of a quarter, a few a half a million, and one or two yet more. The number of pages printed in a large paper of this class sometimes runs nearly to a hundred and sometimes exceeds this figure. In the summer special trains to carry Sunday papers to distant resorts are run, with huge bundles tossed off at every station, often without stopping, and wagons in waiting to carry them to the remotest hamlet. These papers touch every side of life, with departments for women, children, cooking, dressmaking, sports, society gossip, fiction, science, puzzles, jests, scenes and persons snapped on the street, much about the theater, etc. On the whole, probably few agencies have done so much to secularize Sunday. The American father rises late and by the time the Sunday paper is distributed to the different members of the household and they are deepest in it, church time comes but they are too absorbed. Besides, the keynote for the day has been struck on a very low level. It would not, therefore, be strange if preachers tended to compete in sensationalism with the press. The clergyman cannot deal in puzzles or present pictures of theatrical favorites, but he can popularize his message. While the Sunday newspaper is not generally immoral with some exceptions for scandal mongering, it certainly does tend to let down moral, literary, religious, and about all other culture standards.[1]

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[1] For amplification of these views, see Frank Foxcroft, The American Sunday Newspaper. Nineteenth Century and After, October, 1907. p. 609.

In view of this condition various efforts have been put forth to make a people's Sunday evening, perhaps the best being that of Mr. Strainer and Mr. Rauschenbusch in Rochester. A series of twenty meetings was organized in the largest theater by a group of men representing labor, the professions, chamber of commerce, tradesmen, etc. The orchestra played half an hour before the curtain rose on the chorus, choir and quartette. Women removed their hats, the audience applauded, and slips were passed to all present inviting them to suggest songs and topics. Physicians told of the fight upon tuberculosis, and health officers showed screen pictures of local conditions. An unemployed laborer told of his efforts, and there was a debate represented by leading advocates of prohibition versus other forms of regulation. Labor problems perhaps led, and a free employment bureau was opened. On pleasant evenings hundreds were turned away from the theater. This has brought about a unique relation between laboring men and the church and has broken down social barriers. One thing is certain: the old idea of Sunday as a day of worship has been supplanted by the conception of it as a day of rest and recreation. The very attitude of the courts has changed within a couple of decades. Sunday laws are now usually justified on the ground of police protection against physical and moral deterioration by overwork, and in 1884 the U. S. Supreme Court (113 U. S. 702) upheld Sunday rest laws on this basis. In many places what is called the Sunday question is really the question of the closed saloon, against which so many of our foreign-born population most emphatically protest. The Sunday question should be treated as only one of the chief parts of the larger question of the observance of holidays generally. Perhaps special Sundays might be set apart for special observances, so that they should be sharply differentiated one from another even more than, e. g., Easter Sunday now stands out. The monotonous worship features might occasionally be omitted and the total effectiveness of this function might gain thereby. Detailed plan of programme for one in a few Sundays might be profitably discussed in each religious community, a consensus of opinion being taken as to what special features might prove helpful to the various members of the community, and in this discussion the claims of children should not be neglected. Change, rest, and uplift are not easy to combine, but must all be present.[1]

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[1] Pageantry has been defined as the poetry of history for the masses. We have long had parades for St. Patrick's day, Ancients and Honorables, Firemen, May Day, and many others. All these certainly make an elemental appeal. This kind of outdoor pageantry connects with the high modern art of advertising. It needs genuine artists and there should be artistic competition between cities. Perhaps a Master of Pageants should be appointed in every city. The dramatic masque is the most popular appeal. It is not limited necessarily to history of the past but every vital modern institution appears in these processions. When fully organized they will perhaps be largely efficient in providing material for national dramas of the kind, perhaps, which will be needed when we have a civic theater owned by the people and conducted by artists. One of the most elaborate and effective of these was the Oxford Historical Pageant in 1907, which had a series of spectacular dramatic scenes and a rather elaborate volume of words spoken by the great historical personages that appeared from the beginning of the city, A. D. 727, down. University and city were brought into harmonious relations. (See Oxford Historical Pageant, 1907. Book of words. 136 p. And Souvenir Picture Book.) There have been in this country already many very impressive pageants, such as that at Gloucester, commemorating its settlement; the Canterbury pilgrims were presented with various episodes and with all the accessories of song, costume, etc. Often these out-of-door pageants are rural summer amusements. The movement was doubtless helped by Everyman and Miss Mathison's out-of-door work. The Saint Gaudens Masque at Cornish, N. H., 1905, and the Redwood High Jinks of San Francisco, thirty years old, are striking illustrations. Thus, too, the celebration of the ancient sacred rites of Dionysius, the festivals of Pan and Apollo, have been commemorated not only in daytime but by moonlight.

CHAPTER XIV

THE GERMAN TEACHER TEACHES

A personal experience—The ways in which Germany and America can help each other—The radical difference between the attitude and work of the German teacher who teaches and the American teacher who sets and hears lessons—Difference in text-books, illustrative apparatus—Absence of study hour, of recitations in our sense—Charts and maps—The description of the Latin method in the German Gymnasia from Sexta to Ober Prima—Function of examination—The German *versus* the American child.

My first experience as a teacher of pedagogy began twenty-six years ago in a course of twelve Saturday morning lectures given to Boston teachers in a hall on Bromfield Street, under the auspices of Harvard College. In introducing me, President Eliot frankly spoke somewhat as follows: "I have never had much faith in pedagogy, for it has seemed to me too often only to make mediocrity and the commonplace respectable. There are many, however, who think it enough of a science to have a place in a college curriculum. Here is a young man who has studied this science and is fresh from Germany, its home. Those who follow this course may perhaps in the end be able to judge with more intelligence whether I am right or those who believe in this department are. I shall try to follow the course myself, and am ready to revise my opinion if I see ground to do so."

This introduction created on the instant a situation I had not dreamed of before, but one which was tense and stimulating in the highest degree to me then. If I failed, he could say, "You see, I was right; there is nothing in it." If I succeeded, on the other hand, who could know but that I might sometime hope to attain what was then to ambitious young students, at least to those reared near the heart of New England who daily pray with their faces toward the golden State-house dome, the supreme earthly felicity of a chair, or even a foot-stool, at Harvard. Each lecture was reported, and quite fully, in the Boston press, and I thought I did fairly, though by no means ideally, well. At any rate, my audience improved in quality and number, and a second dozen lectures was called for and given in the same hand-to-mouth wise, for till the last six weeks of my six years' stay abroad I had never dreamed of bringing my small store of psychological and philosophical knowledge down to the point of applying it to education. But, alas! President Eliot, whom I revered then and do yet as almost the superman (or *Uebermensch*) in American education, was unconverted and the Harvard chair was not constructed. But an ampler, and to me yet more desirable, field at the Johns Hopkins, then the leader and the light in higher education, was opened to me in preference to other and more worthy competitors for it, because, as I learned later, of my work in that somber Bromfield Street hall. In the first of the conferences that followed each lecture, the then superintendent of Boston schools, Dr. Philbrick, almost challenged me to visit them freely and report, if I could, any single defect. "For," he added, "while nothing human is perfect, I maintain that the schools of Boston are as nearly so as it falls to the lot of human institutions to become."

It was during these courses that I became first painfully aware that many of the best and ablest American teachers suspected everything "made in Germany." One eminent man accused me violently in the press of being unpatriotic, and warned teachers not to listen to me, lest their loyalty to their own system of education should be impaired. Another published a book in which he wrote that, despite my rosy presentation of the Teutonic school system, it was certain that if any American parents sent their children there, they would come home with the habits of loving black bread, sausages, sauerkraut, and lager beer, that they would disbelieve in God, affect foreign ways, and distrust things American. The principal of a large school assured me with some heat in a conference that I was undermining faith in our school system, idealizing Germany, that I was ignorant of schools in this country, and that in all I said there lurked implied disparagement of them. One educator who occupied one of the very highest positions in the country attended a few times and withdrew, telling a friend of mine that he did so because he was too good an American citizen to listen to my comparisons. Another principal declared that everything I described was as unpractical as moonshine and metaphysics. These, and not a few other criticisms which I best remember, very likely had only too much justification in the imperfections of my presentations, which were many and great, and from my enthusiasm for Germany, which perhaps reached its flood tide about then. Yet now, after a quarter of a century, while educational opinion here has greatly broadened and pedagogic intelligence has vastly increased, we still often observe traces of the old spirit. My own zest for things German has undergone great modification, and is, I hope, more judicious, since in certain respects it has suffered abatement, and I believe myself to be now quite sane upon this subject, although the old note of distrust of influences from abroad and the old suspicion still often makes itself heard, albeit with less strength and frequency. Thus, in general, I think that educational opinion in America is now happily poised between Teutonophilic and Teutonophobiac tendencies, so that the best minds are everywhere very ready not only to listen to, but to profit by, suggestions from there and from every other land—as, indeed, the majority were then, though in less degree than now. I never affected the rôle of a mediator between Germany and this country, exporting to them our ideas and importing theirs to us, with the personal labels acknowledging literary and scientific indebtedness, or affecting to own or to have originated the ideas I brought into the country, but scrupulously noting every obligation.

It has often been said that no two countries need and can profit by each other generally so much as Germany and America. This I firmly believe, for in scores of ways that I have elsewhere tried to enumerate they supplement and complement each other. So true is this that an American professor imported from and made in Germany has rather formally and publicly inaugurated himself as the mediator between these lands, saying that when he writes English he seeks to present the best side of German institutions and ideas, and when he writes German he holds a brief for American interests, thus trying to conceal from each the bad points and reveal in strong light the good points of the other. This, I believe, is a most wholesome function, and I presume something has thus been accomplished in the great work of making these two nations still better acquainted and more friendly.

My purpose in this brief chapter is only to sketch in the roughest way a few points in the general educational system of the Germany of to-day, which I have often revisited, and which I think American teachers should know and profit by.[1] I must leave to some one else the no doubt equally important function of characterizing points in our own system which I believe would be helpful to the fatherland. I will begin in the very heart of the people's schools, as they are actually worked, and with a point than which I believe no other stands out in more striking contrast to our own practices.

This may be expressed in the truism, "The German teacher *teaches.*" This simple phrase really constitutes practically the key-word—the open sesame—to the system of popular education in Germany. The teacher there is not a hearer or a setter of lessons. Indeed, many of them would hardly understand what this function meant, if it were translated into their tongue. Neither are they, to any great extent, markers. I repeat, "The German teacher *teaches.*" Each wishes to be the source, if not almost the sole source, of the pupil's knowledge. The ideal is for the instructor's mind to be charged to the full, not only with information, but with inspiration, incentive, and the spirit of guidance. This does not mean that the pupil is passive. On the contrary, the ideal is extreme and incessant alertness, coöperation, and response, teacher and class always working together and both alike active. One finds this difference at once in comparing text-books in this country with those in Germany. Here, texts are many, large, frequently going into details with fine print which may be omitted in the lesson, but the text-book often contains the sum in full quota of the knowledge to be imparted, and the teacher must get it from the text-book into the pupil's mind, and that intelligently. Hence, we often have so many pages, paragraphs, or chapters "set" as the basis of the next lesson's quiz. Under this system, the text-book business has grown to enormous proportions and its influence dominates in many ways and places. The best available talent is employed in making and in selling books, while the best paper, type, wide margins, and copious explanations, examples, and references are given. Thus the teacher is liable to become a book driver and to subordinate himself to the text. The book is the teacher's instrument.

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[1] See My Aspects of German Culture, James R. Osgood & Co., Boston, 1881. 320 p.

In Germany, all this is precisely reversed. In some subjects there are practically no text-books, and in others the only text permitted the children is the briefest kind of abstract or outline, which the teacher amplifies and which serves as a memorandum of what has been taught. Moreover, these tiny booklets are often extremely cheap, may even be in paper covers, and are meant to be perishable. They are so inexpensive that the German parent would never think of asking the state or city to purchase books, poor though that parent be. I have a German arithmetic containing nearly 4,000 sums and costing two and one half cents. Often all these tiny *répétiteurs* are taken home overnight and used simply to facilitate a review process in the pupil's mind of what the teacher has taught during the day. American teachers are always struck, and more and more unfavorably as they have been accustomed to our elegant and expensive texts, with the poor quality of the paper and binding, and sometimes, though far less often, of the type provided in Germany. But the German child uses these manuals but little, and has beside them his own often far more copious notes of what is embodied in the course. Indeed, he is often supposed to make a text-book for himself each year out of what he has learned in class.

This method, too, involves a great number of books for teachers, so that if the pupil has far less, the teacher has far more literature at command than here. The books of reference found in German schools, some of them prescribed by law, others by the inspector, and still others bought by the teacher from his own meager resources, all bear witness to the ambition of the German pedagogue to make his own mind the source of most of the knowledge that the pupil gets. His preparation consists, not in macerating a small body of information by means of superfine methods, but in massing facts and instances and imparting them in profusion and connectedly in large wholes, after first exciting the greatest interest possible and making the child's mental appetite strong and his digestion vigorous. We have in this country but few books of just the type of which the teacher's reference libraries in Germany are composed.

Another result of the fact that the teacher teaches is that time for study in school hours is practically unknown. The child's every moment at school is spent in class with his mind in the closest and most fructifying rapport with that of the teacher. The method of requiring a young child to study is thought to be unnatural and fundamentally wrong. Knowledge must be got in common. The very presence of others focusing to the same point is itself a great mental stimulus and makes far more work possible, and with less fatigue and *ennui.* A teacher who permitted children to study in school would be thought to be lacking in resources or derelict in duty. Book work must be in the nature of a review of matter that has been carefully wrought out in school, and the law authorizes one hour of home work for the younger and two for the older children of this kind. The child may fairly be asked to apply a principle, that it already well understands and has already applied to one set of facts, to another slightly different. It may retranslate a passage in a language which it is just beginning after the teacher has translated it perhaps over and over and had the child write the definition of every new word (for all dictionary work is thought wasteful for beginners), but is should never be given a new passage of which it is to grope or puzzle out a translation. This method of getting knowledge in common and of then briefly conning it over alone involves a valid principle of psychology which makes for great mental economy. Children are intensely social, and when working together with the teacher they almost inspire each other to do his best. The cooler reflective work alone is suitable for the solitude of home.

Another result of the principle that the teacher teaches is seen in the school apparatus. This is often prescribed by law. There are everywhere photographs and usually representatives, sometimes copious, of the fauna and flora of the region. All these reënforce the power of the teacher, are his repertory of valuable resources, and stimulate the interest of the student, making intelligible many an intricate problem which would otherwise transcend his powers of comprehension. They are also great time savers.

I have known teachers, who succeeded in printing interesting, copiously illustrated text-books that we should think admirable, to be criticised for having either not completed their own mental growth, or for seeking a cheap and rather improper popularity or financial return, while such books would rarely be used by good teachers, because each would have evolved in the course of years effective methods or unwritten books of his own, so that to use another's method would be to abdicate his own pedagogic power and individuality.

In the many German schools which I have visited I never saw anything like what in this country would be called a recitation in which the pupil is summoned to reproduce, point by point, something he had previously read with this end in view. Preparation for such a performance would be thought to be beset with most of the evils that we condemn as cramming. It would mean inertness on the part of all the children who are not reciting, and the descriptions sometimes given in Germany of American teachers seated at their desks, calling upon one pupil after another to recite, and marking the performance of each, is received with mingled incredulity and hilarity. To imbibe and then regurgitate knowledge is an educative process of but limited value. Formal examinations, especially for young children, are looked upon as wooden pedagogy. The teacher in close rapport with his class needs no such device to determine fitness for promotion, but could on the moment form a very just judgment of each child's proficiency. Under this method, of course, study hours and study rooms, where quiet is sacredly maintained, are practically unknown.

Always and everywhere, too, I have been struck with the profusion of charts, diagrams, objects in the schoolroom for which often not only a cabinet, but a room, is set apart. German educational literature abounds in these, others are made by teacher or pupil, or collected, and I have heard school buildings, finished and furnished but without this material, compared to corpses or bodies without souls. The German teacher earns his bread by the sweat of his brow. He is generally animated, perhaps active, walking up and down, sometimes enforcing all he says with fire and gesture. He does not believe in soft or sessile pedagogy. Teaching is hard work, and the mind, not only of the master, but of the pupil, is tense throughout. The teacher is thorough, masterful, loves authority, and has it in full measure. He promotes by an act of sovereign will. There is almost no limit to the amount of scolding of which he is capable, and his tongue lashings and frequent bitter, biting sarcasm are well calculated to flay the slow or dullards into activity. If the authority of the teacher and parent conflict, it is the teacher generally who wins out. The school law does not permit young children in term time to attend balls or theaters, so real and earnest, as the poet declares life to be, is the school. It should be added, however, that in recent years the school has itself to a certain extent subsidized the theater as a cultural factor of educational importance, and in a number of the larger cities the pupils of the upper classes of the *Volksschulen* are taken as a part of their school training to one or more representations of classic plays which they have previously studied.[1] All this, I take it, is involved in the simple dictum, The German teacher really teaches. Let me present one somewhat more concrete illustration.

Some years ago I was greatly interested in following the work in Latin through one of the nearly 400 German gymnasia. The boy enters the lowest class, *Sexta*, at the age of nine, after three years in the *Vorschule,* i. e., in Prussia. In other German states he is prepared for the gymnasium in the *Volksschule.* Even if he has chanced to have women teachers before, he now bids adieu to them for good. Every first step in Latin is taken with the teacher. Simple, primer-like sentences are pronounced alternately and in concert. Each word is written; its stem, termination, gender, meaning, are gone over. Everything is parsed, for drill in grammar is incessant and thorough and reviews and re-reviews are unremitting. Every new word is written, and elemental Latin position, first with very petty variations from the sentences read, is practised. The vocabulary is at first quite subordinate to construction and meaning, but just as fast as the former expands, so fast increases the total percentage of Latin words used by the teacher to the pupil and given back. Before the end of this year the regular inflections are pretty well mastered and what little the child has learned is known almost by heart. There are, however, practically no full conjugations or declensions studied or memorized as such at any stage. In *Quinta,* irregular verbs, dependent, conditional sentences, the ablative absolute, interjections, frequentatives, desiderative, diminutive, and other forms are practised, and in oral translations into Latin a vocabulary of between one and two hundred words is made the most of. There is more attention given to etymologies and constructions than to meaning, and throughout this year the ideal is still little matter and much form. In *Quarta,* some larger chrestomata, Nepos, and Livy are read. A new writer is begun with great detail. Everything is explained, all the rough places are smoothed by the teacher, and the child has nothing to do at home save to recall what has been told him. Reviews, often back to the beginning, persist and continue later, but are more and more rapid. In *Tertia,* moods and tenses are wrought out with great thoroughness, selections from Ovid, Tacitus, and other writers are read, along with many exercises and extemporalia, all of which are corrected and the poorest of which must be rewritten. Translations are joint products of the teacher and all the pupils, feeling their way along very slowly. Retroversion is now quite common, and not a little Latin that has been read is memorized. Despite the amount of grammatical work that has been done, there is no general grammar, but in the two *Tertia* years the hardest and most detailed grammatical work is done. Good passages are read aloud with elocutionary effect, and not only they, but occasional sentences which illustrate important grammatical rules, are memorized.

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[1] For a fuller account of this movement, see Miss Curtis's article, The Dramatic Instinct in Education. Ped. Sem., Sept. 1908. Vol. 15, p. 327 et seq.

By the time the boy has attained *Unter* and *Ober Secunda,* or is fifteen, the amount of reading done is surprising. It comprises at least eight orations of Cicero, several books of Livy, the Eclogues, at least six books of the Æneid and Lucretius and Tibullus. These constitute the stataric reading, but besides these not a little cursory reading is done in other writers. Everything is given historic setting, and great attention is now paid to the content of the literature read. There is still much drill on temporal, causal, and final clauses, position of words, etc., and many phrases are to be learned. Poetry is sometimes poetically translated, and I have seen a teacher require an *Ober Tertia* class to express a German thought in good Latin prose and also in good poetry.

During the two *Prima* years come perhaps the De Officiis, De Senectute, and the whole of Tacitus's Germania and Agricola, perhaps six books of Sallust, one or more books of Quintillian, and Horace's Odes, Satires, and Epistles. Interspersed are exercises in Latin history, lectures, a little but not very much archæology, some attention to provincialisms and peculiar forms characteristic of different authors, much Latin conversation, and occasional disputations. Pupils are summoned, now to repeat the content or substance of a lesson, now to repeat the author's phrases, to explain passages, imitate styles, and write sentences of different patterns. The general idea is for the pupil to take no step by himself at first. Only during the last few, and perhaps very few, years does the teacher retire a little and require the pupil to come forward and work independently.

The claims of the classics are never disputed inside the walls or within the sphere of influence of the gymnasia. The teachers believe in a sentence sense as if it were an independent faculty and capable of indefinite development. They seem to hold that every new word in Latin opens up a new associative tract in the brain, or brings to power a new neuron. They revere Latin as the voice of an extinct race from which they have most of all to learn. They do not study it to find etymologies of their own language, but rather to form Teutonic equivalents for everything they find in Latin. Being a dead language, all the culture that focuses in it is a purely mental product, and Rome lives again in the minds of the pupils. A defunct world is reconstructed by imponderable words; thus they learn how the inner world looked to and how the mind worked in an extinct race.

In all this work I do not remember ever to have heard a reference to an examination, and the home work is not preparatory for, but reminiscent of, the work in class. Great stress is laid upon the ear and the oral function, and everything is done with zest, animation, and contagious interest on the part of the teacher. The course above sketched is only a composite photograph made from notes, and is not precisely that followed anywhere, but I believe it presents a correct picture in essentials of the best gymnasial work. It is not edifying to compare either the process or the results of Latin teaching there with those in this country, despite the fact that our tongue is far more intimately related to Latin than is the German language. I have never seen in the whole field of education a more remarkable combination of mechanical drill work with sustained enthusiasm and interest than is this masterpiece of pedagogy. the German instruction in Latin. Compared with this, the results attained in teaching secondary Latin in this country are on the whole nothing less than ridiculous or contemptible, according to one's mood. This is strong language, but I use it deliberately after a comprehensive survey lately made on this subject as taught in American high schools. Does the American Latin teacher teach?

If my space were unlimited, I should like to add further notes of observations on three other topics: namely, music, which is usually taught not by special but by class teachers, all of whom in the normal schools must be able to play some instrument, and where, in the fourth year of *Volksschule,* I have been asked to select from fifty folk songs, chorals, etc., which children who did not read notes could sing by heart. To cultivate appreciation of music and increase their repertoire, opportunities are given the children from time to time to attend philharmonic concerts of a high order. The price of the tickets is 25 Pfg. or about six and a quarter cents. The director of the school ascertains how many children wish to go, takes charge of the purchase of the tickets, and the pupils attend the concert under his supervision. I would speak, too, of the nature study in the youngest grades, which is at its best a model of thoroughness in its method and copiousness of material, closely correlated with language on the one hand and with practical life on the other. I should especially like to describe the also rather recent development of industrial and commercial education which has evolved under conditions quite different and along lines quite diverse from those in our country, the significance of which is that its influence seems to be extending to the highest grades of education, until many Germans now fear that their national system will topple over toward the practical. The marvelous advances of Germany in nearly all the skilled industries, some of which they command, the fact that such a large proportion of the details of business, even in London, are directed by trained Germans, their influence and increasing numbers in the trade and industry of nearly every South American State, the rapidly rising tide of commercial prosperity in that country, all point in this direction. Even a fourth added theme is tempting; viz., the German art of making educational exhibits. In my opinion, nothing ever attempted in this line has yet quite equaled the illustrations of the educational system of this country from kindergarten to professional school that were brought together at St. Louis. For instance, of the gymnasia, typical schools, one new and one the ancient *Schulpforte,* were set forth vividly in a way to show at a glance the details of organization, administration, pedagogics, apparatus, rooms, etc., for every grade; and so on through each department. The contrast between the methods of this exhibition and our own must have been suggestive to both countries. All this was to show what the teacher did and his appliances. Our expositions show the pupil's work.

Finally, I know very well that all these excellences are not universal in Germany, and that some of the best of them are practically an impossibility here. I realize keenly what seem to me the grievous defects of German education, first among which I should place the indifferent hygienic and architectural quality of their school buildings as a whole and the low place occupied by sports and athletics, although there has been a marked change in this respect during the last six or seven years in which the playground movement has made great headway in Germany. Now nearly every school has an ample playground, situated as near the schoolhouse as possible. These contain tennis courts, football ground, and are equipped with gymnastic apparatus. In winter, portions of them are flooded for skating, and in some cases, though not so universally, coasting is provided for. Annual gymnastic *Fests* in the open air, which are attended by parents and friends, have recently come into vogue. In higher grades, of course, Jahn's *Turner* system really does wonders for those who cultivate it, but most of its devotees are adults. The years of training in the army make it a great national school of health and physical development and have made the importance of body culture no doubt somewhat less there than is the case here. The spirit of discipline, training, *Dressur,* in this autocratic country is so highly developed that it no doubt sometimes retards the growth of individuality and independence, although I believe that it is a fault that leans on virtue's side for the rank and file of children. The tension is often great and may be sometimes too great and sap the vigor of undervitalized children, but even this is perhaps eliminating those unfit for an educational career. Training in the catechism seems to me wooden and without vitality. I think the children would profit by longer vacations, especially in the cities, where childhood tends to slow deterioration. The climate perhaps safeguards the German child somewhat from overexhaustion with his work. Perhaps it is the residue of a long Puritan ancestry that also makes me critical of the large number of Sunday schools devoted to industrial and trade courses, for I would like to see this time kept sacred to more cultural and humanistic lines of development. That Germany is just now advancing more rapidly along practical than purely cultural lines, seems to me evident, and I am old-fashioned enough to regard this with some regret.

CHAPTER XV

PEDAGOGY OF MODERN LANGUAGES[1]

The status of modern languages in the American high school—Reasons for the Latin cult and its predominance—Differences between a dead and a living tongue—The fatuity of the assumption of the classicists that they are the representatives of culture—Their tendency to exalt form over content—The wretched and ineffective teaching of Latin—Incompetence of its teachers—The psychology of translation—Relations to utility—Uses of modern languages—The reversal of the old classical method of teaching modern languages since Viëtor—Definition and illustration of the new direct method—Function of pronunciation and phonics—Use of the appeal to the eyes, to the motor sense—*Sprachgefühl*—Value of the *Anschauung* principle and of pronunciation and gesture.

The accompanying table, compiled from the reports of the Bureau of Education since 1888, presents graphically the very pregnant tendencies in American public high schools attended by some 600,000 select youths and maidens, and may well be the point of departure for the following discussion. A few of its general lessons, however, may be described by way of introduction. One of the most general of these is that nearly every science has declined: physiology, which was largely a temperance study, has fallen off since 1896 from thirty-five to twenty-four per cent; physics since 1904 has dropped more than four points, despite the fact that it has received more of the fostering care of both college and high-school teachers than any other subject; physical geography has dropped; chemistry has fallen off so that now hardly more than seven per cent are studying it in any given year; astronomy and geology have declined; algebra surpasses all other topics in the size of its classes; being studied by nearly three times as many as study geometry; and history, although advancing, has been out-

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[1] Reprinted by permission from the N. E. Magazine, Oct., 1907.

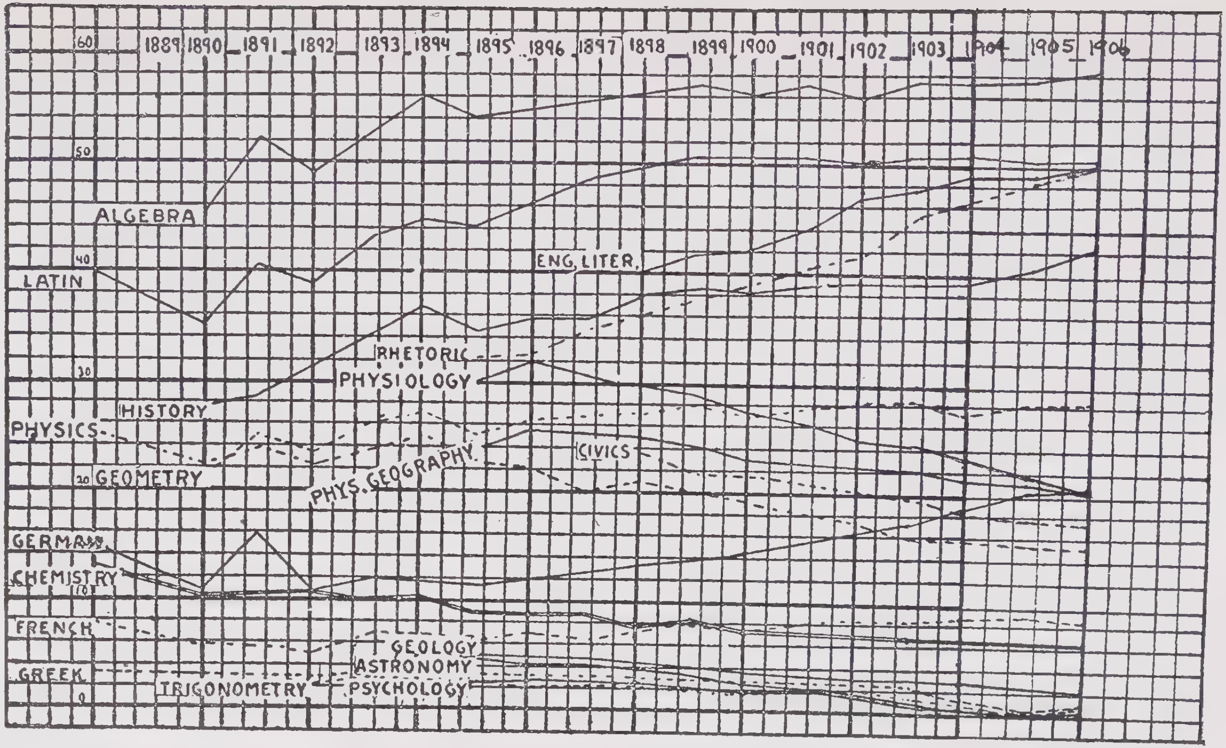

Table showing Per Cent of Pupils taking Different Subjects in High School from 1889–1906.

stripped by English literature and by rhetoric; Greek is slowly dwindling and is taken by only two or three per cent of the pupils; while Latin some years ago crossed the fifty per cent line, French has never reached ten per cent, and German, beginning at this point in 1890 has advanced to about eighteen per cent. These curves tell the story of the favored and disfavored topics, and the most comprehensive and the saddest lesson is that formal studies not only far exceed those that are contentful, but are rapidly gaining. What used to be called the humanistic studies now have nearly twice as many devotees as science. All these lessons it behooves us to lay to heart, and, having rightly interpreted the figures, to also seek to interpret their lessons.

It is, however, only of foreign languages that I write here. A language expresses the life of a race, domestic, industrial, social, political, religious; and so far as the life that once animated it is extinct or transformed, the language is dead. In this sense, the life is gone out of Latin. Not a human being speaks it as a vernacular, or worships Jupiter, once supreme over gods and men. The old ways of war, labor, private and public life, are obsolete, and all this makes such a language, if not *vox et præterea nihil,* a little unreal and ghostly. The Latin tongue and race, ethnologists tell us, died a natural death from decrepitude, if not old age. Now, death is to make room for more and fuller life, and nature has submerged unnumbered other tongues and stirps without leaving a vestige or a name—all for the sake of the unborn. So of all the extinct animal species that far outnumbered those living, not one once dead was ever again evolved. Remarkable as has been the persistence of Latin, which the church took from a dying state, and which scholars have explored from the Renaissance down to the archæological resurrectionists with spade and pick, the product, precious as it is for culture history, is a little like the ghosts of folklore, anæmic, unsubstantial, with a voice lisping, hollow, or raucous with age. The red blood and green chlorophyll of meaning now have been more or less bleached out of it by time. In the cult of a language dead in this sense, form always has, does, will, must take precedence over content, and the choice between a dead and living language as an instrument of culture has many pregnant analogies which it would be interesting to trace out in detail, with the question whether a student of biology would learn most of life by studying paleontology or giving his attention to the fauna and flora of to-day. Happily for science, experts in fossils have been very judicious and temperate in their claims and more mindful of the larger interests of the whole biological field than are the classicists for the cause of language-study generally; for their claim of paramount culture-value has under changed conditions become a pedagogical anachronism. With a few distinguished and honorable exceptions, American Latinists are men of rather limited second-hand learning, with but new fruitful original achievements to their name, but are too largely a guild of text-book makers for the hordes of elementary Latin students in college and high school, and now even in grammar schools, who are urged on by teachers, parents, and traditions to sample a high culture for which, to their mind, Latin stands.

How different all this is when we turn to a living tongue! Here thing, fact, act, or, in a word, content and meaning, lead and words follow and serve; and form, instead of being supreme, is, as it should be, ancillary. Germany, France, Italy, and Spain palpitate with life. Their people are all about us. Contemporary, political, commercial, literary events and interests there touch us. There are no disputes as to how these nations pronounce their language. If we visit one of these countries, a day's experience would give material for a small lexicon or book. There is a certain and legitimate charm, too, in contemporiety, as is seen in the daily press. The art of conversation, too, which Lotze thought at its best the highest human felicity, is possible in a living tongue, and utilities of many kinds add their impulsion to speak or read it. At every stage of progress we are studying the physiology of living and not the anatomy of dead tissue. The mind is laden with impressions and experiences till we are impelled to put words to them, precisely as the child does and as the creators of language did, who had to evolve it because their mental content overflowed. The modernist does not have to begin with the *flatus vocis* of a word spoken or even printed, and then proceed to find a meaning with which to besoul it from the little known of antique life.

Apologists for the classics have often urged that the culture-value of a tongue is increased because it is dead. This argument played a rôle in the German discussion twelve years ago and is very prominent in the book of Bennett and Bristol.[1] The argument runs as follows: To reconstruct the life of a great or vanished race from words alone, to read and understand their records, to reproduce their states of mind in ourselves (which constitute all that now lives of ancient Greece and Rome), and to do this with none of the above aids which the teacher of the modern tongue can invoke, is almost a creative process which gives us a purely ideal mental product that lives, moves, and has its being in the imagination informed by memory and tempered by reason. One writer even adds that when England, France, and Germany have gone the way of Greece and Rome, as they may some thousands of years hence, then their language and literature will acquire the same higher-culture power for our remote posterities who study them that Latin and Greek now possess. If this is so, it follows that the far future fruits of our loins or the descendants of races now savage, when they have their innings and occupy the center of the historic stage and wield the ever accumulating resources of civilization, will have a still larger repertory of instruments of culture than we now have, unless the later tongues depose the older and Greek and Latin fall back toward the place now occupied by the old Aryan and Accadian.

But let us look at this argument seriously. If the impoverishment of living content is desirable, why are the classicists so anxious to restore it by every device of maps, diagrams, photographs, casts, and why was, e. g., the St. Louis exhibit of models of Roman implements of many industries and illustrations of customs, dwellings, school, theater, daily life, public and private, religion, etc., hailed as such a pedagogic triumph, when it only marked one step toward giving the work of the Latin teacher just the realia which constitute the great and ready aid of the teacher of living tongues? Who denies that this is good or that more would be better?—but these the modernist has.

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[1] Bennett, Charles E., and Bristol, George P.: The Teaching of Latin and Greek in the Secondary School. N. Y., Longmans, 1901. 336 p.

But, further, the classicists' arguments have slight regard for the psychophysiology of speech as lately revealed by the study of its diseases, which show that language which really lives and is normal, with ear and mouth its primary centers and with those of the eye that reads and the hand that writes accessory, also has multiform connection with the centers of all visual images, not those of words alone, and of all motor impulsion. A tongue that lives is first of all heard and spoken, and its foci are auditory and oral. If it is not spoken it thus lacks even linguistic actuality, and all that is bookish is two removes from life. But, more than this, the speech centers are connected with those of touch, of taste, of smell, and with reflex and voluntary movements, and very closely with all the processes of thought, will, and feeling, so that if any of these are impaired in the slightest degree the speech function suffers. Hence, language becomes a true organ of the soul just in proportion as we think, will, feel, sense, act, in it or make it the focus where all afferent processes converge and whence all efferent activities diverge. That these cerebral and psychic currents of life and mind are more vital, more numerous, and more widely irradiated in a living, than they can be in a defunct, tongue is plain to every one familiar with the facts of the sensory and motor aphasias. The tailor who cannot say "shears," the farmer who has lost the words "corn," or "wheat," the shoemaker who cannot utter the word, "awl," the butcher who cannot say "meat"—all these at once pronounce these words and other nearest their vocation if they see, taste, smell, or use the objects; and almost any form of presentation along these associative lines always tends to bring out the proper word, showing how one and inseparable in our psychoneural constitution are speech and contact with real and present life, and how merely verbal and artificial a language can become the content of which is found only in the remote past.

Thus the professors of Greek and Latin always tend to exalt form over content and substance. It would be interesting to trace what I believe are the remote results of this tendency in our language school books and in our rhetorics, the writer of one of which declares that it is not part of his business to give students anything to say, despite the fact that their minds are prodigiously empty, but his function is to make their words and sentences, if they use any, proper, appropriate, and grammatical, or clear, concise, and definite. This undue separation of form and content in the classroom depletes any subject of human interests, so that most of our Latin teachers are no longer humanists, but philologists, antiquarians, critics of texts, editors, authors of copious footnotes, verbalists, syntacticians, pedants of form, and too often negligent of the moral and literary content of even the authors they teach; and these pedagogic errors copied from the university by the high school have brought about the extraordinary fact that while more secondary pupils in this country take Latin than any other topics, save algebra alone, more drop it soon and forget it more completely than is the case with any other topic. The vast majority of Latin students in this country to-day are high-school girls, and if my census of from four thousand to five thousand is typical, more boys drop Latin and also drop out of high school from this cause than is the case with any other subject; while in colleges with electives boys are rapidly abandoning the study of ancient for that of modern tongues and sciences. If, indeed, the ideals of young men are the best materials for prophecy, college Latin will soon be left to girls, most of whom hope to teach it in the high school, or perhaps now, in New England, in the grammar school, since it has been introduced into the ninth grade.

Another very important result of this meagerness of content in a dead language is that the novice lingers longer in the translation stage than he does in learning modern tongues. In the latter he can soon associate the word with the object, act, or quality directly, without the mediation of the vernacular, while in Latin or Greek the word must be translated into English and then given its meaning, so that here there is more word-matching, which is a very formal process, because language itself abstracted from meaning is the object of study. Indeed, this is now even set forth as the great advantage of a dead tongue. Latin, we are told, teaches more of English than the study of English itself, and Bennett goes so far as to urge that when the student is so proficient in Latin that he thinks in it without mentally translating, its culture-value declines; or, in other words, the chief advantage comes in the earlier stages of study, and it is the secret of its pedagogic worth that this stage is prolonged.

Now I submit, if this were true, the ideal of Sturm, perhaps the prince of all Latin teachers, of so training boys that if they could be transported to ancient Rome they would feel more at home there than in *Schulpforta* itself, was wrong, despite its magnificent results. He was jealous of the vernacular and waged war upon it in every way that he could devise. He wanted none of this mediation and abhorred translation. Were this view sound, it would also follow that we must beware lest our classes in Latin advance too far, lest Latin cease to be ancillary or *ad majorem gloriam Anglici* and set up for itself a danger that need give us no present cause of great alarm. If this view be sound, the efforts above described to animate the speech of old Rome with copious illustrations from its life and to make all *anschaulich* are erroneous, because all such devices tend to bring life and eliminate the mediation of English. We should work with grammar, lexicon, and textbook alone, and keep the walls of our classrooms bare of pictures; but to do any or all of these things is absurd. Once classics introduced humanistic studies and this was their chief purpose. Now about every vestige of this old purpose has vanished and the wooden technical drill in elements tends, if anything, to render the mind immune to the literary influence and specifically to the literature found in those tongues. What pupil ever gained incentive in the modern classroom to read even in English the great masterpieces?

What of the boasted effects of the classical tongues upon English in the callow stage of linguistic development in which most students of ancient languages are? Some of you remember the curious pigeon or translation English of the Harvard examination papers which Charles Francis Adams reproduced in a pamphlet some years ago. From most of these sentences it seemed as though all idiomatic sense of the purity, propriety, and precision of which our rhetorics, fitter to make proof-readers than orators, prate so much, had been completely lost. The process of deterioration is easily understood. The boy selects one of the first of the meanings of each new word from his Latin-English dictionary, and arranges these, each with its proper termination for case, mode, and tense, in the general order of his own tongue, and the version is made perhaps literally correct, but stylistically clumsy and grotesque. His effort to be faithful on the one hand to the original, and to be true to the genius of his own tongue on the other, ends in a compromise which makes his rich and cherishing mother tongue stepmotherly and the pupil a linguistic orphan or bastard. He may go on to develop a speech-consciousness which is oppressive and from which he hastens to escape, when class hour ends, into slang, which is now the *lingua franca* of the American adolescent boy and girl. This translation stage is a very critical period for linguistic development, beset with many and grave dangers, and it is one of the chief advantages of the modern languages that they shorten it and thus reduce these dangers and give two independent languages, and not a mongrel or cross-breed between two philological species; and all hybrids are sterile.

But of course translation may be a high art. Long ago I spent a year with a philosophy class on Jowett's translation of Plato with what I thought fair results, but my colleague, a splendid Grecian, reproached me, saying that my work was not truly academic, that Plato could be understood only in Greek, and he even intimated that it was almost a profanation on the part of the great master of Balliol and his pupil who worked at it many years to translate it at all. I know a Dante scholar who calls Longfellow's translation a well-meant vulgarization of the " Divina Commedia," and others who think the same of Palmer's " Odyssey " and of other great translations of masterpieces, and hold that a quintessential something with inconceivable culture-power, although too subtle for psychology to detect, is lost in these versions. This is often true, and if so, how great the value that is dissipated in school translations! On the other hand, such claims as the above are often pushed to the extent of academic affectation and caddishness. Did not King James's corps of scholars translate the very saving soul of Scriptures into English, and Fitzgerald that of Omar Khayyam? Indeed, it is said of both these and others that their content was better when rendered into English than it was in the original, because it found in our tongue a better organ. I think that the pedagogy of the future will begin the study of all great masterpieces in other tongues, ancient and modern, with that of great versions in the vernacular, if they exist. Every real translator must first make the original tongue a second vernacular and truly read it, which consists of taking in all the author's meaning unchanged, and thus attaining his standpoint and partaking somewhat of his genius. Only when he has done this can he transport and recreate the content and make it speak equally well and possibly better than its original tongue. Many, if not most, of the great ancient classics are now monuments of English literature and should be read and rated as English classics. Now this art of many arts, translation, the tyros can only parody, and their babble-babel is a confusion of tongues. They cannot translate anything worth while, and the classicist who looks only at the ideal translation when he speaks in public, and not at the actual performance of his pupils in the classroom, lives in a Fool's Paradise. That the best methods of teaching modern languages reduce the perils of these efforts to ever smaller dimensions is one of their chief merits, and the classicist has much to learn of them.

Again, training and culture can no longer be contrasted with or even separated from utility. Psychologists agree that all that we have thought to be purely noetic is at bottom purely practical, for the intellect is one form of the will. Pure no longer stand over against applied sciences, and service is the supreme test of all culture-values. Only use-value is real, and there is no general ability that can be trained by certain subjects and then, once developed, be turned in any direction. Reason, imagination, memory, and the rest are from first to last specialized by nature, and must be so by education. Hence we must also consider pragmatic values.

Latin and Greek terms are most needed in the glossaries or technical nomenclature of the biological and medical sciences, including chemistry, which it is estimated use more such terms than all the words known in Latin. The German seeks to duplicate every one of these words by those of Teutonic origin, often clumsily enough, while we have but one technical terminology. Mineralogy, geology, and paleontology also draw largely upon the classical dictionary. Mathematics, physics, and astronomy need but few such terms. Legal practice demands but a few score phrases bequeathed it from the

Roman law, unless one is to be a student of the history of jurisprudence and wishes to read the Justinian Codex in the original. The clergy need Latin and Greek, but few of our Protestant theological seminaries use the former, and some do not require it, while even New Testament Greek may be fairly said to be in a languishing condition. It would be interesting to know how many use it later. Technical students often get on well without either Latin or Greek, but for all these scientific uses, terms from a dead language are better, because they will not change with growth and so can be given a fixed, arbitrary, and sometimes even a new meaning. The other, and probably the chief use to which Latin is now put, is for teaching.

In the advanced and intensive study of Greek and Latin I believe with all my heart. I have visited the different national schools at Athens and Rome, and though not a classicist, have felt as a pedagogue their splendid scientific enthusiasms, and can in my dim lay way appreciate the magnificent results which the great leaders have achieved, and share their hopes. I would strengthen the classical departments in every university in this land and cheer them on with my heartiest *vivant, crescant, floriant.* My protest is against the qualitative degeneration that has gone with the quantitative expansion of these studies, especially in secondary-school grades where tradition and respectability have made them but the shadow of a shade, where the first year's high-school Latin of five hours a week gives a vocabulary (on which too much stress is given here) of less than four hundred words, about as much as a baby acquires of its own tongue the second year of life, about one quarter of this slender stock of words being so near their English equivalents that they could be rightly guessed without study. It requires little or no knowledge to translate *convenio* convene, *feminia* feminine, etc. Under current methods of setting and hearing lessons, instead of studying with his pupils as I have described in a previous chapter,[1] the American teacher does not need to be nearly so far in advance of his pupils as does the teacher of modern languages under the methods they now use. For the rank and file of Latin teachers, the pedagogic method is, if I am not mistaken, more antiquated than are methods in any other field, the preparation less substantial, and the work more often abandoned by the pupils. Some of the more conservative masters almost seem to feel it bad form to try to make their work easy or interesting, and have a certain esoteric aloofness; so that you easily detect in educational discussion their sense of *élite* superiority that talks *de haut en bas,* as if they were culture's own chosen and elect. In the days when Donatus and later, Priscian were most in vogue, Virgil was read for the sake of the grammar, so supreme was form and so insignificant was content; and later, to show how low Latin training can degenerate, we have abundant records, in the history of education, of clergy who used the Latin formulæ of the church, but did not understand it enough even to change the genders in the prayers for the dead. Charlemagne's "Capitularies" describe sufficiently this condition of Latin training.

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[1] See Chap. XIII, Edward Conradi, Latin in the High School. Ped. Sem. March, 1905, vol. 12. pp. 1–26.

The modernists, too, have their enthusiasms. How many American teachers in all advanced departments look to Germany as the birthplace of their souls into the higher intellectual life! There, and perhaps in France, possibly in Italy, we found our vocation, set our standards high, and our later pilgrimages thither are almost as to a Holy Land of science. Perhaps we, too, idealize their art, literature, life, fashions, and even errors. We need them to supplement and complement, as well as to spur us on; and now, as everything is taking on cosmic dimensions and the world is acquiring a solidarity, he who knows but one living tongue is provincial. The Greeks did not have to study a foreign language, and who can say how much more indigenous their development was from this cause? Had they done so, it may well be doubted whether they would have produced the immortal works which make their language a literature now so precious. And the Romans studied only Greek, which was to them a living, modern tongue. To be a citizen of the world, as the educated man and woman of to-day must be, we must know at least several tongues. Which is better, to be ancients, or to extend the range of our linguistic rapport among contemporary nations? Every teacher of every department who wishes to follow the progress in his field must command at least French and German; for translations from these languages, even the works of the first rank, are less and less.

Reading knowledge of them is almost necessary for respectability in any line of scholarship to-day. If the American lawyer needs them less for the practice of his profession, the American clergyman needs them more if he would lead or even grow. They open a rich, new, and varied field of untranslated literature, and not merely to the critic or student of comparative literature, but even to the reader of novels, dramas, and poems.

Much American talent goes into politics, and most of it into business, and if there is anything now needed more than anything else in these fields, both so suddenly broadened as we have become a colonizing world power, it is just the culture that comes from a broader, sympathetic view of how things in the field of industry and statecraft look through French, German, Spanish, and Italian, not to say still other eyes. Our American Bureau of South American Republics tells us over and over again that we are losing all these markets because we do not know French and Spanish, and fail to find or send there sagacious agents who do.

Our ambassadors in foreign lands are often totally ignorant of the tongue of the sovereigns and courts to whom they are accredited, and are often victims of imposition from the underlings in their own office; and the same is often true of those appointed to rule the races that have recently become subject to us. We have been strangely provincial and linguistically insulated from the great family of nations, and have thus grown singularly incapable of profiting by the experiences of other lands, although we are now slowly improving in this respect. It would have been better for the past and present and future if the proportion of youth studying ancient and modern languages had been exactly reversed. Nothing gives such insight into and respect for another country as to study its language and thus to get into touch with its soul. To do this, to feel the aspirations, to know the achievements, to be spurred by the sentiment of emulation and rivalry, to seek the virtues, and to avoid the errors and vices of other countries in which the *Zeitgeist* is now weaving the complex web of history, to realize that there are other excellences than ours, to be shamed for our political and social shortcomings by others' merits—this and not converse with the past is the new, larger, and truly humanistic culture of the present and of the future, toward which we must now strive; for content and not form must lead.

One of the most radical revolutions in the recent history of pedagogy was the reform which was really initiated in 1882 by Viëtor's brochure, "*Der Sprachunterricht muss umkehren.*"[1] This was a vigorous demand for an almost complete reversal of methods hitherto in vogue. The old grammatical or translation method was essentially based upon classical models with their paradigms, rules, big lexicons, etc., by which the dead language was learned through the medium of the vernacular, into which everything must be rendered from the classical page and perhaps retroverted. Grammar was generally the nucleus. The method was deductive and formal. It harked back to Aristotle and to the ever-shifting boundaries between grammar and logic. Although inflections and structural forms are less developed in modern than in the ancient languages, it was natural that coming later and with the splendid apparatus and all-controlling traditions of classical pedagogy, the methods of the newer languages should fall into the old ways. Although we have had many efforts at emancipation, some of them very helpful and suggestive and some almost fanatical, the real reform began with Viëtor. In its developed form to-day its main features may be roughly summarized as follows: From the beginning, great stress is laid upon pronunciation of the phonic elements of words in the new language. Upon this there is intensive drill at first. Both mouth and ear must be trained and the pupil must be made familiar with Viëtor's *Lauttafeln,* always in sight. A few radical teachers have suggested the use of the phonograph with perhaps diagrams of the vocal apparatus, and would touch upon the physiology of voice production. This overcomes at the very start the instinctive reluctance to vocalize the new tongue. Stress, too, is laid upon accent, emphasis, and sometimes the whole matter of "speech music." There is a great deal of oral practice and even concert work to encourage the backward students. The teacher reads much out loud. There are dictations, memorizations, conundrums, charades, rebuses, singing of foreign songs, playing of national games, stereopticon lectures, dramatics, addresses by natives, if possible, so that the oral and auditory element is stressed in a natural way. Much use is often made at the very start of colored wall charts, such as those devised by Hölzel, and others which were originally intended to support the ear by the eye in the teaching of the vernacular to children. So object lessons are provided. Stress is laid upon the vocabulary of daily life. Students walk, exercise, perform items of their toilet, telling at the same time what they do, to add the support of the motor element. It is insisted that the material of instruction should always be copious and real and if possible should be taken from the life of the people whose language and literature are studied. If it is French there are pictures, stories of Paris and its various institutions, imaginary trips through various parts of France; conversation is on such practical matter as directions on the street, clothing, food, occupations and industries, weights and measures, money, and all the common experiences of a traveler. From the very start, the vernacular must be almost entirely ignored. Some extremists taboo it completely, while others give a few words incidentally to help out meanings. Some express the conception as developing another independent language soul. One would feign that the class is inarticulate save through the new medium. A psychological theory, too, has been evolved that thus a *Sprachgefühl* may be cultivated, to which a unique and almost mystic power is ascribed. Conversation is incessant; everything is analytic, imitative, realistic; and free composition takes the place of translation. It is a little surprising that most advocates of this method insist that the teacher should be not a foreigner trained in the language he teaches but a native who knows its difficulties. Teaching must be very intensive at first, on the theory that it is harder to get a good grip on the language at first than to keep it up when it is acquired. The subject matter for conversation must be very copious and as interesting as possible, perhaps even sensational. There must be an incessant and systematic review. It is urged and often now insisted upon that every teacher, at least of secondary grades, must have visited the country whose language he teaches and that everything should be saturated with the history, literature, spirit, life of the country; that only one foreign modern language should be taught at a time; that the spirit of the *milieu* must be omnipresent, and that the acquisition of the new tongue should be, as Brereton says, a veritable transmigration of the soul.[1] In connection with this should be mentioned the so-called Frankfort Method, which has been largely introduced into the Lycées of France. Not only should there be but one language at a time, but the order should be e. g., first French, then Latin, and in non-German lands, first German and then Greek. This experiment has already proven that the pupils who begin languages later, thanks, perhaps, to this intensive method or to their greater maturity of mind, are not inferior. One great advantage of the Frankfort Method is that it enables the choice between classical or modern education to be deferred until at least the age of twelve, whereas under the old scheme this decision must be made at nine or ten.

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[1] Henninger, Heilbronn. 1882.

It is along these lines that teachers of modern languages to-day may be divided like political parties into conservatives and progressives, or left, right wings and centers, the latter representing the compromise methods. Some things are certain. One is that this method has brought intense life and interest into this domain of pedagogy, and the other is that it requires a far higher degree of knowledge or familiarity with the language taught on the part of the teacher than the old method. And thirdly, it makes the teacher the center and demands far greater activity and effort on his part. The new way has been a prodigious stimulus to teachers who both from interest and compulsion have become vastly more competent than they were before. The old guard is still strong and indeed prevalent in this country. They are skeptical of a language atmosphere which is entered with as much change from the normal state as on entering the church. They deny the extreme difference asserted between living and dead languages or that the former can be made as cultural as the latter. They insist that it is not necessary that the teacher should be grammar, dictionary, everything in one, as well as more or less of a philologist trained in linguistics. They do not admit the need of special institutions for their own instruction, like the unique institute at Geneva, "to which teachers from all parts of Europe flock," and do not think it unfortunate that as the Committee of Ten in 1892 said, "there seems to be no institution where persons intending to teach German, French, or Spanish, in our elementary or secondary schools can receive the preparation they need," because philology and specialization dominate in the university. Some, like Grandgent, take a pessimistic attitude as to the status of modern language teaching in this country. He urges that in this respect the American schoolboy is two or three years behind the French and German child, and ascribes this to the absence of Spartan discipline, which we perhaps can never have in this country; to the greater inducements in Europe, where other languages are nearer and use is more imminent; to the wretched equipment of the average teacher; to the inferior pedagogy in these subjects as compared to that in the classics; to the far too low estimate which classical teachers put upon the cultural value of the subject, to the absence of discriminations of method with respect to age because the effects of child study have never been realized in this field.[1] Nor is this matter better in colleges.[2] Everywhere the spoken word is neglected. The dead lesson-setting, dictionary-grinding method and translation prevail. We do not distinguish between the general informational needs of all classes and the special needs of research students, and all colleges have to teach classes of beginners, while everywhere the evils of college prescription and maladjustment to the needs of secondary pupils are felt.

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[1] See his Teaching of Modern Languages in England. School Review, June, 1904. Vol. 12, pp. 441–461.

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[1] See Modern Languages in Secondary Schools, by Julius Sachs. Educat. Rev., Feb., 1905. Vol. 29, pp. 163–178. See also Von Sallwürk, Fünf Kapitel vom Erlernen fremden Sprachen, 1898. The Method of Teaching Modern Languages in Germany, by Mary Brebner. Lond., Clay, 1899. 71 p. The Teaching of Modern Foreign Languages in our Secondary Schools, by Karl Breul. Camb., Univ. Press, 1899. 94 p. Teaching of Modern Languages, by H. W. Eve. Lond., Nutt, 1905. 31 p. De l'Enseignement des Langues Vivantes, par Ch. Sigwalt. Paris, Hachette, 1906. 288 p. Der Kampf um die fremdsprachliche Methodik, von Gerhard Budde. Hannover, Hahn. 1908. 120 p. Zum Methodik des neusprachlichen Unterrichts, von Max Walter. Marburg, Elwert, 1908. 68 p.

[2] See S. W. Cutting. Some Defects in the Teaching of Modern Languages in College and University. School Review, April, 1904. Vol. 12, pp. 308–318. Der psychologische Zusammenhang in der Didaktik des neusprachlichen Reformunterrichts, von Bruno Eggert. Samml. von Abh. aus dem. Gebiete der päd. Psy. u. Physiol. H. 7, Bd. 4, 1904. Is Modern Language Teaching a Failure?

The principle of the new method that contact with real things, stimulates linguistic development is sound. To show French coins and currency, illustrated journals, photographs, to keep in touch with current events in France, stimulates interest as does the now extensive system of correspondence by which German boys and girls, under their teachers' supervision, write carefully prepared letters in German to French and English children of like grade, who reply in French and English respectively, which began in 1897. The topics are carefully chosen and treated in a way to instruct and interest foreign correspondents. Permission to enter upon this scheme is reserved as something of an honor for those who attain a certain grade, although thousands of children now have the benefit of it. Vacation trips are often advised and arranged and occasionally given in prescribed form, perhaps as prizes, to the country whose language the children are learning. The proposed compulsory fifth or seventh year abroad for teachers of modern languages, not only with full pay, but with a stipend added for the best, will only confirm a very common practice in Europe and not only augment proficiency in teaching and give it greater zest, but indirectly, will help on the cause of international amity by giving new points of contact with the soul of other peoples, and tend to counteract the influence of the jingo press, and envelop the pupil in the culture atmosphere in which the language he is studying has its being. Thus information concerning food, traffic, industries, politics, education, religion, literature, valuable as it is in itself, is used to vitalize this work, which is often supplemented by conversational *Grüppen* or *cercles*. The Gouin, Berlitz, and Haeusser

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By C. H. Grandgent. School Review, Sept., 1907. Vol. 15, pp. 513–534. The Question of Translation in the Teaching of Modern Languages, by Paul O. Kern. School Review, April, 1905. Vol. 13, pp. 293–306. Some Points of Weakness in Modern Methods of Language Teaching. Modern Language Teaching, April, 1910. v. 6, no. 3, pp. 72–83. Modern Language Teaching, July, 1910. v. 6, no. 5. Report of the London Board of Education for the year 1908–09, pp. 130–132; A French Inspector's Directions for the Teaching of Modern Languages, pp. 132–136; The Place of German in the Secondary Schools of Scotland, pp. 140–142. L'Enseignement de la Langue Française, par Ferdinand Brunot. Paris, Colin, 1909. 192 p. Vom deutschen Sprachunterricht in der Schule und von deutscher Erziehung und Bildung überhaupt, von Rudolf Hildebrand. Lpz., Klinkhardt, 1908. 279 p. Der deutsche Aufsatz in der Prima des Gymnasiums, von Otto Apelt. Lpz., Teubner, 1907. 284 p.

methods long ago recognized the importance of this principle and many of their devices have been adopted by the " new philologists " without the rigor of the Gouin series or the Berlitz absolute exclusion of the vernacular and the relative neglect of pronunciation and the feeling that it can take care of itself, shared in more or less degree by each of these systems. As the culmination of all the seminary work for intending teachers in this field, the German teachers are demanding that each university have a professor of each of the chief foreign languages as well as of its literature, and a reader who shall be a native.

As to *Sprachgefühl* and keeping the new tongue apart from the vernacular in a different psychic register, the verdict of psychology is not so clear. Aphasia shows that all speech is one and has the same cerebral center. It is true that bilingual and polyglot individuals often mix certain elements of languages, like idioms, and that pronunciation of one interferes with that of the other, but even they rarely mix vocabularies, while cultivated people find not the slightest difficulty in modulating from one language into another. Indeed, even the Romance and Teutonic tongues are near relations, as philological relationship goes, and if the development of *Sprachgefühl* for one language abates rather than augments it for another, we must revise our present conceptions of the motive and desirability of studying foreign tongues. Still, what student here has not often during his progress toward mastery of a new tongue, found periods of something akin to afflatus when all went easier and he was surprised at his fluency, after which he lapsed back to his old rate of progress? This is the truest atavar of *Sprachgefühl.* For myself, I have read and spoken German with some proficiency from my early manhood after nearly seven years' residence in that country, but to the very best of my analysis, English is always in the background and the translation psychosis is rarely entirely absent. It is a kind of support and I hold every word and shade of meaning in German that has not a good equivalent in my own tongue by a less secure tenure. The two tongues are like an unequally matched span of horses, one always leading and doing most of the work, so that true thinking in a foreign tongue would be somewhat crippled without constant aid from the vernacular. From frequent self-analysis, too, I believe there is much illusion, in the common conviction that we must and can ever think freely in a tongue acquired after the dawn of puberty, and that if one did not lead and the two were entirely independent, there would be loss of the power of expression. If this be so, the teacher should be sure that with every new word the pupil promptly knows its nearest equivalent or counterpart in his own tongue, and that without this there is waste and loss. At any rate, the new tongue is not an independent thing to be begun as we learned our own, so that we must avoid the affectation of speechlessness at the start, and of repeating the baby's method.

As to pronunciation and dramatic and other action, the new method is firmly based on the principles of genetic psychology. Man's first speech was action and perhaps originated as mere accident to it. Then it became a nucleus of florid gesticulation and pantomime, and still later, when only articulatory organs are involved, and especially when the complete pronunciation of vowels and consonants even tends to fade and become blurred, we are near the end of the scale of the degeneration of utterance. To restore all these accompaniments, inflections, stress, mimesis, dramatic action, imitation, makes language live again. It rejuvenates it toward its pristine freshness. Hence, like eloquence, the new pedagogy is action and has realized that words set in this matrix are vitalized, and that not only the alien tongue itself, but all that makes expression honest and utterance pure, is also helped.

Another matter of prime importance, but rarely mentioned, is that it is of little value to study any, and especially a modern language, unless the pupil gets enough so that he can make habitual use of it. Latin, as we saw, has been deemed of high cultural worth, even though very little be learned of it, and that little soon forgotten, and this inveterate tradition has insensibly passed over to the modern tongues where it is even more false than with Latin. Most boys, and even more girls, who begin German and especially French, never command it sufficiently for much use in either speech or writing. If it lapses into disuse, there is educational waste as there is where any study aborts. A few terms of languid application, a few score pages read, a few authors dabbled in with the aid of the teacher and the incentive of marks, social stimulus of fellow members of the class, competition, and then oblivion involves not merely the loss of effort that to-day might be far more profitably spent among many topics in the culture demanded by modern life that are passed by or slighted for the language fetich, but it means mental tissue left to disintegrate. It gives the psychoses of partial decay. The degenerative processes involved in this loss of power that was acquired by labor are probably practically identical with those involved in the more general decay of senescence. It gives thus to young people's minds the precocious flavor of old age, brings the subconscious note of failure, and of the vanity of endeavor, perhaps censure of their advisers, or of their own youthful misdirections. Even if there be no viewpoint from which it is better to have learned and lost than never to have learned at all, as only poets say of only love, something of the fresh, naïve trust in new zests is sicklied over with a sense, if not of failure, at least of the better that might have been. In this country, at least, the old fetich idea that to be learned consists chiefly in being able to use a foreign tongue which others do not understand—an idea that ought to be obsolete, dies very hard. Very few indeed, in this great country will make any real practical use of their modern languages in later life, and all others surely would have done better to devote their school days to other topics. For this old psychosis, the chief badge of scholarship is to be unintelligible. It is the same psychological impulse that prompts the use of technical terms when others would do as well, or to interlard speech and script with foreign phrases of which the vernacular has an equivalent. This gives to youth an exquisite sense of imposing superiority. For scores of generations in Europe, the tongue people were born to was deemed vulgar, and the foreign-speech fetich in our school to-day is the vanishing remnant of this old contempt. To call man l'homme or Mensch, girls, filles or Mädchen, etc., and to thus match up a few hundred words and phrases does give the pubescent soul a most thrilling sense of being aloof and superior. It brings dreams and visions. It seems like a peep into a new and higher world and is ravishing and sometimes almost ecstatic, as returns upon this subject show. Often monoglot, hard-working parents feel a new pride in their offspring. It suggests that grinding manual toil is left forever behind, for it would surely be a degradation for anyone who has studied a foreign language to toil with his hands, for there is a popular, though unconscious, sentiment that nothing gives surer immunity. Moreover, this is the easiest way of seeming mysterious and of gratifying the passion for secret language that Chrisman and others have studied and to make esoteric impartations. Such motives as these are far more dominant than adults realize at first, but they soon weaken and prove a very shallow soil for expertness to grow in for they are not sufficient to sustain protracted effort.

On the other hand, all real scholars and specialists, and perhaps only such, must to-day command two or three foreign languages sufficiently to absorb their subject-matter or otherwise they remain handicapped. Science to-day speaks three or four tongues and not one only, chiefly, or alone. Moreover, translation is decreasing. Not to be able to know the latest and best productions at first hand in the field of his own science or in letters stamps the scholar as provincial in the cosmos of learning. It is a too common and pathetic experience of university teachers to meet mature students who have just awakened to the fact that their high school and college French and German was of little value and that they must command these languages and might have done so much earlier and easier. Thus pedagogy must on the one hand warn off the smatterers who love to begin everything and finish nothing, and on the other hand, it must coax and coach those who give promise of ever getting in sight of any small section of the intellectual frontier. Not until this is effectively done and our American teachers are more competent and much more strenuous in the actual work of teaching, can modern languages be rescued from their present sad condition in this country and be placed upon a sound and solid basis.

From its beginning in 1904, "Modern Language Teaching" and to some extent the German organ on the same subject (*Zeitschrift für Französische und Englische Unterricht*), have actively discussed the psychology of translation. In both these series, the drift of opinion seems to be to the view that the psychic process of translation is inevitable but that the translation habit may persist and become so excessive as to retard pupils like finger-counting in arithmetic; that if association of the new foreign word with that nearest it in the vernacular can be artificially eliminated, the new word in the new language is held by a weaker tenure because the vernacular word helps to fix the memory of the new as truly, if in a different way, as association of the new word with the object it designates does: with this translation process given its due place and its normal development, the knowledge acquired of the new tongue is less evanescent, but that the translation mentations should diminish with proficiency and that far more is to be said in favor of translation from the new into the native language than *vice versa.* There seems a general consensus that ten, which is the usual German age of beginning, or eleven as preferred in Norway, is the minimum age at which a foreign language should be seriously taught. It is needful that the vernacular be developed sedulously and to a vigorous life of its own and that good work done here really tells for the new tongue when it is begun, because the habit of normal idiomatic expression developed in one language helps the other, and that thus the linguistic soil is loosened and fertilized so that it will in a sense support the new tongue, and that at this age the new and the old will not unduly interfere with each other. Again, oral should take precedence over written work and the pupil learn to write as he speaks and not to speak as he writes, following thus the method of nature with the vernacular. If writing predominates in the new tongue, the standard of expression is apt to lapse, for writing pupils often tolerate sentences that would not pass muster on the auditory lingual tract. Mouth and ear must vitalize all. Again, a second modern foreign language should wait two or three years longer, during which the first alien tongue should be taught four or five periods a week and thus have time to set up cerebral housekeeping more or less independently. Once more, the support of realia in the way of objects, pictures, and concrete knowledge which the direct method relies so much upon at first, should also later be gradually withdrawn and the pupil led on from utilities and *Anschauung* to pure literature, that he may thus command ideas which live, move, and have their being in language alone, for to command this is the end. It seems, too, that the old slogan of the directists that every rule should be learned inductively, known or memorized in the language studied, has been carried too far, especially for older pupils. Writing from dictation and especially rewriting corrected exercises, is not gaining ground, nor, perhaps, is memorization and declamation, save for school dramatics, important as this element, if not unduly magnified, is. Great and growing stress, however, is laid upon oral question and answer. Interrogation is an immense provocative of thought. It summons the pupil to command all his resources and challenges him to rise to meet a mental emergency.

CHAPTER XVI

PEDAGOGY OF HISTORY

Different schools of historians—Different aims and purposes in teaching history: (*a*) scientific, (*b*) evolutionary, (*c*) for citizenship and politics, (*d*) for culture, (*e*) the moral purpose—Reasons for preferring the latter—Plea for primitive history for the young, even if it be unauthentic—What moral education really is and means for the teacher of history—Youth is most at home near the dawn of things or when the world is young—The impulse to destroy the records of the past and even our own pedigree—The maxim, history for history's sake—The present as both the flower of and the key to the past—The new pedagogy of teaching history backward, starting with an amplification of current events—Illustrations of this method—Relations between history and evolution—The analysis between the law of the conservation of energy and entropy on the one hand and the ideas of evolution and progress on the other—History teaching must reverse its current methods.

THE literature on the pedagogy of history is now copious, especially since a group of essays edited by the present writer in 1883,[1] followed by M. S. Barnes' Study on the methods of teaching history, which appeared in 1896.[2] Since then we have had H. E. Bourne's Teaching History and Civics in the elementary and secondary schools, The Report of the Committee of Seven to the members of the Historical Association, dealing mainly with secondary, and that of the Committee of Eight of the N. E. A., in 1909, dealing with elementary study; the work of J. W. Allen, in England,[1] of McMurry in the United States;[2] from Germany, the book of Jäger,[3] and the two books of Scherer.[4] It is interesting to realize with Degani how differently the problems of history present themselves in

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[1] Methods of Teaching History. Boston, Ginn, Heath & Co., 1883. 296 p.

[2] To study the historic sense among children (The Development of the Historical Sense in Children. Studies in Education, a series of ten numbers devoted to Child-Study and the History of Education, 1896–97. Ed. by Earl Barnes, Stanford University, Cal., 1896–97. pp. 43–52 and 83–93). M. S. Barnes studied the written questions of 1,250 children concerning a brief and curiosity-provoking narrative. She found that in boys, the *who* interest culminated at 15 and in girls at 12; the *where* interest was highest in boys of 15 and girls of 11; the *how* interest culminated at 15 in boys and at 12 in girls; the *why* interest also at 15 in boys and 12 in girls. Of these questions, those concerning cause and effect led in point of interest; who comes second and where follows as a close third. Time interest is slight and so is interest in the truth of the narrative. The main interest follows strong lines of action and seems to demand clear presentation of persons, places, cause, and rela-

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tions, with less insistence on time, ethics, and expanse of details. To test the power of inference, children of different ages answered questions as to what they would do if shipwrecked on a desert island. The number of inferences made here rises rapidly at the age of 12 for boys and 13 for girls to an average which it has kept rather steadily, but with a constant tendency to rise. The number of legitimate interests became pronounced at 12 for boys and at 13 for girls. With young children, the personal interest is strongest, but tends to disappear at 11 or 12. The power of inference and imagination seems to run parallel. About 13 it should be remembered is the age in which doubt and criticism begin to be developed.

W. S. Monroe (Historic Sense of Children. Journal of Education, June 24, 1897) obtained answers from 2,666 Massachusetts children between eight and sixteen to the request "Tell why you believe there was once a man named George Washington," 17 per cent relied on hearsay, the mother being mentioned by 55 per cent of these, the father by 20, the teacher by 5. Eighteen per cent based their belief on general reading. This, like hearsay, decreases, although more slowly, with years and girls trust books more than boys. Thirty per cent based on history. This was weakest at eight and strongest at sixteen, when it was given by 40 per cent. Celebrations of his birthday and pictures played an important role. The second test was the question answered by 1,546 Massachusetts children between eight and sixteen. "Name some event that happened before you were born which you know to be true and tell how you knew it was true." Hearsay headed the list with more than 33 per cent. At eight years 52 per cent of the boys and 68 per cent of the girls gave hearsay; at twelve 28 per cent of both and at sixteen only 5 per cent of the boys and 7 per cent of the girls. Here, too, the mother led, especially with the young. The book most often quoted was the Bible. These two studies gave us the following results. Hearsay dominates with the youngest children. They want events dramatic, connected with their own life, but with slight time or place connections. Second, comes general reading, also with weak time sense; later, history. Fourth, come memorials, relics, and anniversaries. Things which give visible connection with the past make it more real. Local historic connections are valuable. Fifth, from thirteen on logic begins to be felt. This is often of a feeble kind. Children believe in our Civil War because their father or grandfather lost an eye, finger, gets a pension, and so on.

[1] Place of History in Education. Edin., Blackwood, 1909. 258 p.

[2] Special Method in History: a complete outline of a course of study in history for grades below the high school. N. Y., Macmillan, 1903. 291 p.

[3] The Teaching of History; translated by Chaytor. Oxford, Blackwell, 1908. 228 p.

[4] Führer durch die Strömungen auf dem Gebiete der Pädagogik und ihrer Hilfswissenschaften, zugleich ein Ratgeber (for teachers). Heft 3, Geschichtswis-

different lands. For instance, Italian children, especially in Rome, are surrounded by monuments which *are* ancient history and which must develop a taste for it. One elementary school in Rome looks down on the Coliseum and historic interest in the past could hardly be repressed. Somewhat the same is true of the public schools in modern Athens, and yet in both these lands there are teachers who hold that it would be better even there to adhere to the simple teachings of contemporary Italian and Greek history, not only because these are of thrilling importance themselves but lest the children be impressed with the idea that the best things have already happened for them and in their land. The problems with which the pedagogy of history is concerned are very many. Some include in it the history of history, traits of leading modern historians like Niebuhr, Ranke, Hellwald, Lamprecht, Mommsen, and many others; how history has been regarded by great men from Rousseau and Goethe down; how humanism, the scientific methods, evolution, have affected it; they discuss the progressive and regressive, the concentric, biographic, monographic, and genetic order, the place and use of poetry, practical life, tendence influences, pictures, etc.

If we interpret history as including all that has happened in time from the beginning down to the present moment, or "everything that everybody has ever said, thought, and done," it is, of course, the largest of all topics and includes most others. In the yet broader horizon of evolution it embraces nature as well as man, and voluminous as are its documents, most of it is yet to be written, or rather, never can be written. For our far narrower purpose, it is the experience of the human race stored in books and memory. In ancient Judea, Greece, and Rome, it was the simple genetic story of one race and that only in certain very limited aspects. Now history is not one, but many, for besides modern nations the story of ancient ones is unearthed and enlarged so that the field of written

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senschaft. Lpz., Wunderlich, 1907. 168 p. And *Ibid.*, Heft 4, Geschichtsunterricht, 1908. 207 p. See, too, the Bibliography of History for Schools and Libraries, by Andrews, Gambrill and Tall. N. Y., Macmillan, 1910. 224 p. Lucy M. Salmon, Some Principles in the Teaching of History. In Nat'l Soc. for the Sci. Study of Educ. Yearbook, 1st. pp. 1-61. 1902. W. H. Mace, Method in History. Boston, Ginn, 1897. 311 p.

history now stretches far beyond the ken of the most learned individual, while modern critical methods show that Herodotus and Thucydides, Tacitus, and Livy, precious as they are, yet knew little and understood less of the true history of their land and times. To-day every department of human interest has its history, books, and authorities, great and small, each language or literature, philosophy, religion, science, and industry; and there is military, financial, commercial, political history, histories of dynasties, heroes of the common daily life of the people, education, dress, fashion, parties, and every social institution, each with subdivisions in which a man may work a lifetime and know a little of the rest. The school of Freeman, Stubbs, and Gardiner, has little respect for Hume, Gibbon, Macaulay, Hallam, Lecky, Buckle, and the disciples of the former were scandalized at Froude's appointment to Freeman's chair because he tried to be interesting even at the expense of accuracy. The former school demands that each should choose a limited field of English history, keep to it and off the domain of others, cling to facts, and be very wary of all generalization and explanation, till we wonder if Schopenhauer was right in urging that history really has no meaning, and whether, as Schleicher said of language, history can be defined only by the phrase "*Es ist was es wird.*"[1]

W. E. Foster[2] discusses well, and at length, whether history is essentially science or literature.[3] History, he says, no longer requires a florid, obtrusive style "of purple patches," nor does it afford room for rhapsodies. But, although facts are the foundation of it all, the scientific use of the imagination is not excluded. The scientific historian is so objective that he has little interest in motives. His motto is "history for history's sake." It is ever a means to an end. Montesquieu based history on physiography, as did J. W. Draper. Rogers and Seligman emphasize its relations with economics. Frederic Harrison includes it under sociology.[1] For G. E. Woodberry it is connected with "race power."[2] Some think it an art. J. P. Baxter calls it "the orderly expression of great forces whose continuity of action gives it unity." Herbert Adams defined it as "not the dead body of the past but the living and unfolding consciousness of the present with regard to its development from the past."

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[1] At several points in this chapter I have been indebted to data collected by Horace L. Brittain, a graduate student at Clark University.

[2] The Point of View in History. Proceedings of the American Antiquarian Society, April 25, 1906, pp. 349–420.

[3] See on this subject, Lamprecht, What is History? Tr. by E. A. Andrews. N. Y., Macmillan, 1905. Also, J. I. Wyer, Jr., Bibliography of the Study and Teaching of History; American Historical Association, 1899. Vol. 1, pp. 559–612. Also, over one hundred citations in notes of Lord Acton's Inaugural Lecture at Cambridge on The Study of History. Lond., Macmillan, 1895, pp. 75–142. Also, W. P. Johnston's Definitions of History; Report of American Historical Association, 1895, pp. 45–53. And R. Flint, History of the Philosophy of History. N. Y., Scribner, 1894, pt. 1, pp. 8–12.

The historian must never be convicted of holding opinions,[3] nor should he care whether his conclusions are interesting to the reader, for the desire to be attractive is dangerous. Hence, he seeks to be colorless and objective. He is content to toil for months without definite results, for he makes great discrimination between absolute proof and a high degree of probability, including, as Gardiner does, about everything as available for historic purposes. The literary historian has some regard to style and to probabilities. Literary treatment, however, is not as it is sometimes contemptuously called, the easy method. Many have tabooed style, especially if overloaded, as if it were inimical to accuracy, yet the best authorities are now coming to realize that imagination and perspective and the thorough digesting of material is very important. There are historians of a chronic and perhaps morbid tendency to inaccuracy. Macaulay, e. g., is not infallible, but it should be remembered that he has fifty readers probably to one for Stubbs, Freeman, or Gardiner. Froude, whom severe critics have said rarely deviates into truth, cares little for minute fidelity of detail. He often quoted his own *résumé* or documents, or omitted passages in his authorities without the usual marks of omission. He certainly used original sources more than any of his English predecessors, and the bitter enmity which Freeman felt for him has caused his faults to be magnified. It is far easier to know than to understand history. One must first of all get out his facts and then and there he ought to contribute something in the way of interpretation. History is not a club with which to hit people whom the writer dislikes. Gardiner is, after all, only the historian's historian. The higher criticism applied to the Bible is not more subtle in its methods than the historian often has to be, and the sources of inaccuracy are very many, so that the motto, "false in one, false in all," is often extremely misleading.

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[1] "History is only one department of sociology, just as natural history is the descriptive part of biology."

[2] "History is so much of past experience as abides in race-memory, and underlies race-literature in the same way that a poet's own experience underlies his expression of life."

[3] See C. H. Firth's Inaugural Lecture at Oxford, November, 1904, A Plea for the Historical Teaching of History. Also, C. Oman's address, February, 1906, at Oxford on the same subject. Also, C. F. Adams, The Sifted Grain and the Grain Sifters, American Historical Review, January, 1901. Vol. 6, pp. 197–234. John Jay, The Demand for Education in American History. Annual Report of the American Historical Association, 1890, pp. 15–36. Edward Eggleston, The New History, Annual Report, 1900, pp. 35–47. H. C. Lea, Ethical Values in History, Annual Report, 1903, pp. 55–69.

The crown of history, Foster concludes, is prediction, but man never can be an automaton. There must be room for freedom and individuality. All compilations of research not elevated into the form of art are closed to the general public and their value is only esoteric. Hence, we should beware of the exhortation that history must emancipate itself from literature. The too literal present methods will make "the whole workshop of historical research a vast lumber room, unless we can recognize the saving grace of style as the great antiseptic not only of literature but of history." The historian must be judicial. Public opinion generally alternates from the historical to the scientific point of view, and evolution now has great influence as theories of natural rights did in the early nineteenth century. On the whole, judged by the canons of literature, historical writing has declined.

For the practical pedagogue it often seems absurd to flaunt all this erudition in the face of primary, secondary, or even academic teachers, the very best of whom can never in a lifetime of work master one one-thousandth of the literature or come to intelligent and well-grounded opinions on one one-hundredth of the questions involved. If we were to start from the actual knowledge of history possessed by the average teacher of the subject, we should realize that this is so meager that there is very little choice of matter or even of method, and that the best teachers can teach only a certain field in a certain way, and are quite likely to be upset by realizing fully that there are so many others. The fact remains, at least in this country, that the greater part of historical teaching consists in the exacting of the reading of one or more text-books and a reproduction of the subject-matter on them. Again, the more exact prescriptions of how to do and what to do here may be a great and genuine stimulus, but it can be so only for a very short time, and in a field so large, precise prescriptions that tend to uniformity are probably more pernicious than in any other domain. Let us realize, then, that there is no best field or best method, and that merits and values here are always and must forever be relative. It is no wonder that, to most adults, history suggests some one book studied a long time ago in school. Therefore, when we are gravely told in an address by a secondary teacher that those who administer this subject in the high schools must have (*a*) an extensive view of the political history of the world, (*b*) a knowledge of history of government, (*c*) of international law and diplomacy, (*d*) of economics, (*e*) of philosophy, of history, and so on, we must wonder if those who talk and write most upon this subject are not living in a fool's paradise or celebrating a kind of pageantry of their ideals, or presenting themselves with a consolation prize for what they would, but cannot do.

In this confoundingly vast and complex field, what can the pedagogue now do? Shall he go on teaching the old matter by old methods served in new attractive manuals, as the Sunday School goes on teaching the Testaments, for edification only, ignoring the new Bible revealed by higher criticism? If this were best we could not do it, because in history the college expert and his higher view dominates and prescribes, while in religion conversely the church view dominates the professor and teaches him reticence and reserve. Hence it comes that in the one field, the high-school youth is protected from methods and results of advanced scholarship while in the other they are often prematurely forced upon him.

To my thinking, it seems now time to go back and move the previous and all-dominant question why we teach history at all. Why should it have a large and growing place in our ever more crowded curriculum? What is its value, and what can and should it do for the young?

I. Should it, as one group says, primarily teach by scientific methods, show the working of the law of cause and effect in human affairs, develop where possible on the basis of physical geography, introduce statistics to show average uniformities or responses to physical conditions, even in the domain of individual freedom? This has been advocated even for upper grammar grades, but I believe the very nature of high-school youth needs to develop from history a growing consciousness of freedom, the sense of which, according to Hegel, is the only measure of advance. The very idea of law in human affairs comes late, and while we should ignore no standpoint, this should surely be subordinate until the university period.

II. Is it, again, to teach to think historically, to acquire the habit of seeing all things in temporal perspective, as products of growth and development, to learn where to find authorities and sources, and to implant the habit of turning to these as Kendall's book and the committee of 1902 recommend? This is somewhat connected with the method of intensive study in a restricted field introduced into some English schools and occasionally here. This is surely a precious addition to the teacher's repertory and should not be excluded; but is it not prematurely academic? It is surely not our prime purpose to make historical investigators, and the complexities of Droysen's *Historik* would be precocity in the high school.

III. Again, assuming that good citizenship and patriotism are the religion of the public school, should it not be our prime object to make intelligent citizen voters, and lay the first stress upon duties to the State and society? This view is greatly emphasized by the modern interest in sociology and the need of amelioration and reform, and seems to me a yet higher aim, immensely reënforced by the needs of modern, political, and social life. It is vastly broader than the effete watchword of the Blüntschli school that was painted on the walls of the historical department of my late colleague, H. P. Adams, "History is past politics and politics is past history." But here, as in weighing each of the other standpoints, we must not forget the ever-growing preponderance of girls in our high schools, whose practical demands and interests all admit are not quite identical with those of boys. Girls do not like history as well as boys. Even the latter in the teens have not quite reached the age and maturity when civic interests, which are of slow growth, are very deep or strong.

IV. Again, is it culture history or to give a background and skeleton for literature, science, or to develop memory, language, and imagination, to enlarge the naturally very narrow personal horizon of the young, to make them citizens of all times, spectators of all events, to assimilate the history of the race, to be the telescope and the microscope of man's self-knowledge, to make the young feel the rich ancestral heritage of the past and worship their ancestors and their great deeds? This is perhaps the most broadly humanistic and liberal aim of all, but also perhaps the hardest, most comprehensive and least satisfactory, and culture history is yet in its infancy.[1]

These, as ideals, are not only helpful, but noble. While they have much in common, they are also diverse. But I believe that there must be one dominant aim to which all the others, while not eliminated, should be subordinated, and I write not, of course, as in any sense or degree an expert in history, but to plead that the high-school teacher, while not ignoring these academic ideals, or college prescriptions, or even the very helpful report of the Committee of Seven, turn in thought from these to another aim and take his cue from the nature and needs of youth, the highest criterion of all educational value, striving first to be a teacher and minister to these, and abandoning for himself the methods of original research. If we do this I am persuaded that a fifth aim, namely, the moral one, will be found fittest to be made supreme. This conclusion is not based chiefly on the fact that in every land the percentage of juvenile crime is both increasing and becoming more precocious, significant as this indication is of the general need, but on the fact that ethical purposes by their very nature can best include and harmonize while they also overtop all others. Modern text-books and theories of morals do not even suggest the richness, scope, or efficiency of this point of view.[1]

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[1] R. Stevens (Teachers' College Record, March, 1909. Vol. 10, No. 2, pp. 2–15) pleads for the study of primitive history in the curriculum of the high school. This is now usually omitted, because the newer schools of history discard the early stages in the development of nations as unhistoric. Its sources are difficult, because we are taken to times before events were systematically chronicled, but archæology has found and ethnology interpreted enough material now, so that for some countries, e. g., Greece and Egypt, this might have a prominent place. Children do not realize that all races once had a cave-dwelling stage or that man was so long in becoming mature. If it is logical to place ancient before modern history, why is it not still more so to go back still farther in the history of the evolution of civilization? Primitive life might be studied by continents or might be approached by industries and institutions, such as food-getting, tools it requires, fire-making, domestication of animals, basketry and pottery, clothing, dress, ornaments, dwelling, travel and transportation, art, religion, amusements, education. Of course all amusements and libraries within reach should be utilized.

A. M. Shorto (Jour. of Educ., July, 1908. Vol. 30, n. s., pp. 499–501) makes a vigorous plea for local history, on the basis of considerable experience of her own at Exeter, England, where she came as a stranger, and in the course of a few years developed a rather elaborate course that was so attractive that it came to be thought a function of keeping girls and boys at home, attracting them at school and making even their parents more contented.

It was just because history was not thought able to moralize, but to be, as Gibbon later defined it, a record of crime, folly, and calamity, and to be often immoral, that it found almost no place in the *trivium* and *quadrivium* which held sway for a thousand years, that the pedagogues of the Renaissance, the humanists including Erasmus and Melanchthon, and the philanthropists, either excluded it except for the education of princes, or confined it to carefully edited compends of antiquity or sometimes limited it to Judea alone. But for Luther, as for Salzmann, it was a thesaurus of inspiring ethical examples to show how all got their deserts in the end. For Schmidt it was to illustrate God's ways in the world. For Thomas Arnold it demonstrated the power working for righteousness, and was to give a practical philosophy of life. Even for Droysen its values are chiefly ethical or, as he puts it, it is the self-consciousness, the ethical "know thyself" of humanity, inculcating patience, uprooting prejudice, showing how virtue must be militant before it can be triumphant. It warns by showing the blindness, temptation, and folly of men, and inspires them by contagion to the emulation of the greatest deeds of the greatest and best men of the past.

Now, moral education does not consist in teaching to avoid all swear or dirty words, disobedience, pilfering, truancy from school or church, rowdyism, cigarettes, quarrels, laziness, inattention, obstinacy, selfishness, or disorder. These are not central. Juvenile immorality is not all comprised even in the nine hundred and fourteen German words for faults which Közle lists from the writings of thirty pedagogues nor in the fifteen large classes of faults to which he reduces them in his contribution to the growing science of paidological pathology, or to those errors to which the three thousand terms in the scolding vocabulary of old Hauberle refer. Many faults that interfere with the teacher's mere convenience or even ideals are only virtues unblossomed and yet in their homely bud. The very good youth is usually abnormal. A child may conform to the above standards and be morally neutral, imbecile, or even rotten. Truthfulness, e. g., may be so inculcated as to kill the imagination, obstinacy so treated as to destroy the will, and so on through the list. Some, if not all, such faults are in some degree inevitable in the teens, and to magnify the guilt of them is to divert the moral sense from the larger essentials of virtue. Thus in pleading that history should be taught chiefly for moral ends it would be only priggish if we meant that it should be chiefly so used as to correct such faults. "Whoever," says Dr. Brittain, a former student of mine, from whose notes I have much profited, "rubs in the fact that Washington could not tell a lie, or rubs out the fact that he swore, has neither historical nor moral common sense or tact." Perhaps women teachers are more liable to such errors of perspective and more prone to identify virtue with conventional conduct than men.

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[1] Emil Reich (History and Character. Nineteenth Century and After, Feb., 1908. Vol. 63, pp. 254–271) urges that character is the chief value in the world. Of course there are geographical, political, economic, social, and national factors in all historic movements, and the ideals of nations are important; but Carlyle's high estimate of character in history, though it savors of hero worship, is very suggestive for pedagogy. It was Joan of Arc whose unique character saved France, as the ever new stories of her life bring out in clearer relief. It was the sublime traits that gave her significance and make her still an inspiration. The Hebrew prophets showed the same grandeur of character, and from them the nation took heart and direction. It was great characters that made Roman history. Backed by his power as *pater familias*, the old Roman became almost a virtuoso in character. Scipio, Hannibal, Cincinnatus, Fabius Maximus, Julius Cæsar, loomed up in a way that rivals Pericles. In modern times we have few such characters, save Napoleon, who was one of the great Titans in history, and this aspect of his life gives it pedagogic significance.

The real case is this. The one fact that towers above all others in the teens is that Nature then suddenly endows youth with about all of her most precious gifts and gives us our psychic capital of heredity for life. This donation comes like a spring freshet that, if its floods are stored, irrigates every crop the soul can bear and brings all to harvest, but, if not, speedily passes away leaving only gullies, cañons, and desert wastes behind, so that later life is arid, desiccated and not fertilized. What is this bequest? It is hard to characterize. We may call it imagination which supplements facts, which represents the best of all history, namely, that which is not yet written because it has not yet occurred. Perhaps feeling or sentiment is a better term, or idealization, which is often truer to the heart than to outer fact. The religionist calls it faith, "the substance of things hoped for and the evidence of things not seen," which is the special forte of youth, or the enthusiasm of humanity, which who can define. The moralist says it is a pure sense of oughtness or of duty not yet formulated, or given its clear objective aims, or again, it may be the sentiment of honor, the strongest of all motives, even overtopping the sanction, love of life itself, in young men and women, but often also the most perverted. It has been called the unminted bullion of humanism. At any rate, it is the nisus or push upward of evolution in the soul which has impelled man's every upward step in his development, the promise and potency of the superman that is to be. The psychologist can no more define it than the biologist can define protoplasm, or the physicist, ether. But it is the raw material of human life out of which everything that is best in it is made. It is plastic to the teacher to preform and mold. It is for the shaping of his moral life-stuff that the historical even more, perhaps, than any other, unless it be the religious teacher, is responsible. It is the moral nature before it is developed into character or is expressed in conduct or habit. Genetically, it is a felted mass of all the dim ancestral experience of the race reverberating in the individual soul. It is love before it has found an object, interest before it is vented in the cultures. If this is wasted we are old at twenty-five, and if conserved we are young at eighty. Myth, poetry, legend, are its placenta, and truth to it is higher than conformity to facts which, unvitalized by it, are dross, slag, the mere tailings of a mine. It often gives a brief scintillating moment of genius even to dullards. Better in youth the gushiest, mushiest morass of sentimentality, than the early aridity toward which our old civilization, our precocious devotion to utility, our inclination to the early loss of even the sense of, and sympathy with, youth unprecedented in all history, which tends to make our school system, while the biggest, most costly, and materially magnificent ever seen, the least morally effective of any on earth.

Now what kind of historical teaching best develops this nondescript mother-lye of the higher moral life? The age for the romance of history has not yet passed, but is at its prime in the middle teens. Herbart said twelve was the age when the subject matter of Homer sank deepest and did most good, but later studies indicate that this is a little early. At any rate, the taste for pure old legends like those of St. George, Arthur, the Round Table, and the Grail, if well told in good Anglo-Saxon, according to Freeman's ideal, has not weakened at sixteen, and even if they are known before, now they have new meanings. Youth is most at home near the dawn of things. Properly edited historic matter from the Old Testament, Herodotus, Thucydides, Tacitus, Froissart, and a long list of others, are psychologically nearer to this age than is the last election. *Wherever the world is young youth is at home,* and some of the oldest writers of history, properly edited, contain more for them than do the latest and most scientific. Dante, "the voice of ten silent centuries," needs only pedagogic editing to be one of the noblest links between literature and history. Now it is because the matter of the best of these old histories was long in the unwritten stage of oral tradition, plastic to the historic muse, that it has been worked over and distilled into an almost purely moral content. Much that the modern historian rejects because it happened nowhere is precious because it might have happened anywhere. Such history is the very essence of education at a certain stage and best of all calculated to bring out all innatenesses above described, to embody them in incident and to give their mazy indefiniteness form and shape. The faint inherited traces of ancestral experience find here their complement in the life of the race. Some tell us that the best of this most precious culture material is lost, but if so we must treasure all the more what is left if the practical science of evolving man is not itself to be lost, and we have a grave responsibility to improve and enrich our curricula by new inventories and constructions of this most condensed culture matter. For school purposes, as for Carlyle, history should be to teach the infinite difference between good and bad, to set forth, even if in loud colors, the law of right and wrong, justice and injustice. Just at that point, when the *cause* of æsthetics and ethics is not yet quite differentiated, youth enjoys nothing like an unpointed moral, a cycle of events grouped about a great ethical problem. With this stimulus his memory, judgment, and reason work best. The very gallery of the theater applauds most the apparitions of moral law where the hero and the villain richly get their deserts. Anything that shows righteousness rewarded and vice punished arouses interest as does nothing else. The Bible has been thought supreme and even divine, and taught where no other history was, because it made for virtue and conduct, which is three fourths of life. Let scholars investigate and colligate the facts; the great teacher has the yet higher task of biblifying them in this sense so that we can guide life by them, economize its forces, and get most out of it. The problem is not, I ween, primarily to teach what has been, but to save moral powers from going to waste. In a crude metaphor, we must first store the waters of life if we would later use them for power or draw them off into a thousand channels for fertilizing life. The dwellers in man-soul have learned to warm their moral life by wood fires from forests, both new and primeval, but the old traditions and uncouth myths which the modern historian rejects as common earth we are just learning to use like the coal measures laid down when vegetation was far richer and ranker than now and which are full of possibilities of power and warmth that we have not realized. These are already coming to be centers of great genetic interest to the psychologist and will have no less value to the teacher of history when we know all their meaning and how best to use them.

I propose a new definition of man as the only creature with an irresistible impulse to destroy his own pedigree. Primitive man contended long with the higher mammals for the dominion of this globe, and won. He has always been the great exterminator. Every decade some species he hunts for sport or profit becomes extinct, and the list is a long one. Every century adds to the list of primitive people like the Boethuks and Tasmanians who perish from the weapons or diseases of civilization, and whose blood cries from the earth. Other ethnic stocks are likely to perish to the last man during the new century. The so-called missing link between man and the higher anthropoids has been destroyed by this ruthless instinct. Man covered his tracks and destroyed the ladder by which he arose. So in the world of culture we are fast losing all feeling for the naïve, the natural in thought, feeling, and conduct, for the rural in our urbanized life, for childhood and youth which, evicted from its paradise, now cannot wait to become adult. Science is often practical, un- and anti-humanistic, our chairs of literature teach philology, our historians are pragmatic, disparage early writers as inaccurate, eliminate as useless the records of beginnings and golden dawns in the story of ancient nations because of an admixture of myth which they have not yet learned to interpret. But Tyler, Frazer, Grimm, Wellhausen, and even Wagner, are historians, too, who have made this dim past glow with a new light, restorers of a lost stage of development and therefore also restorers of youth to its own, supplying the phylogenetic key to what was well-nigh lost in the individual. Was it not a reproach to Grote, who swept away everything in Greece before the Doric invention, that it was left to the spade to find a new interpretation of Greek history in the earlier Mycenæan, Cretan, and even Ægean period, that extends the story of Hellenic man from 700 back to perhaps 2000 B.C.? In short, wherever we look we now find indications that when psychogenesis and pedagogy come to their rightful kingdom, the stones which the historians reject may yet become chief stones of the corner and that the maxim, "History for history's sake," like that of "Art for art's sake," while both have their place for adults, should be subordinate both in history and art, as should, perhaps, everything else for youth, to morals. Granted that history should give a growing self-knowledge in the present living progressive age, can we truly fit for this except by living through all the important stages of the past and repeating each significant step by which the present was reached? Does not youth suffer because history is still unhistoric and too exclusively devoted to advanced scientific methods? Indeed, is fitting for life in any present the best way of fitting for life in the ever larger future, and if educational ideals ever attain their proper place, will not the most advanced university graduate feel that in teaching history in secondary schools he faces as new and as important a field of original research as anywhere?

Again, while pleading merely for a new and greater emphasis here, other aims, methods, and fields should, of course, not be ignored. For the teacher in no other department, perhaps, is it quite so necessary or quite so hard to use every method, and yet keep each subordinate, to maintain just perspective and escape everything doctrinaire and faddish. While pleading for more and better oral narrative teaching we should surely always have a good text-book to anchor to, and here I am told and inclined to think, from cursory inspection, that our English co-workers are now better off than we, rapid as has been our improvement of late. The individualistic theory of history as the essence of countless biographies cannot interfere with any scientific or even necessitarian view in a mind with room in it. Some use of sources is now possible in the high school and gives a new sense for origins and documents. Note-taking with some dictation, if careful and judicious, is a grateful variant for the pupil and gives the teacher by simple inspection perhaps the best of all tests for promotion. The library, collateral reading, with coöperative methods and efforts, learning to work together and work for the common good, suggest also a much larger collection of books and a comparative use of them in every school, and may mark a new epoch in the habits of study. Too many maps, even large ones from the government, too incessant reference to geography, and especially too many pictures, lantern slides, perhaps games with history cards, it seems to me, some authorities to the contrary notwithstanding, we can hardly have. Colored chronological charts of both universal history and that of special countries, genealogical schemes of dynasties and reigning families, statistical diagrams from the census, curves of financial, industrial, vital data, the cycle or spiral method with a general survey later repeated and amplified, always assuming that every review should be broader instead of a new period at each grade, seem to me too little favored by the Committee of Seven; and are not both the unit block and the intensive method involving any high degree of accuracy and detail too academic, and should the high-school teacher have to think much of satisfying college entrance examinations? Is that teacher not a poor devil, in the printer's sense at least, who brings into much prominence the collecting of and class work upon old entrance examination papers, stimulating in certain very limited ways as this may perhaps be to a few under the present unfortunate conditions? So, too, mock town meetings and congresses may have a place, but is not the American way of evoking opinion and discussing questions, about which the wisest differ, overdone? May it not breed conceit and a sense of attainment, and are not the Germans right in their insistence upon inculcation, leaving reason and independent judgment and weighing evidence and original investigation to come later when powers are more mature and facts better known, while utilizing to the utmost the golden hour of memory? While in general we should follow the stream of continuity, temporal and causal, that does not mean that we should never work backward from the present or from effect to cause. Knowledge of the common life of the people in past periods is, of course, important, and in some places, like Milwaukee, students from not only the high school but the upper grades go in classes to an American museum, and not only see but sometimes attempt for themselves the processes of spinning hemp and wool, making fire with flint, weaving on looms, and otherwise seeing the ways of life of our colonial forbears; but we cannot study the past without sympathy with, and in many periods attention to, monarchs and courts. Between the minstrel and the monograph, in which history begins and ends respectively, there is an immense interval, and there is room for every method known and yet to be developed, and, therefore, need for great freedom for the individual teacher to work best where and how he is strongest, for each school to utilize every local opportunity and incentive. Is a uniform curriculum in such a vast field sacred, possible, or desirable? Is not historic unity to a great extent an artifact, and should not the teacher here scatter all possible hints and suggestions, open *aperçus,* favor browsing, begin many things that he does not finish, often attempt to be so extensive as to seem superficial, because youth, in a sense, covers more surface than depth? Should he not sow a great deal of seed upon the waters which he never expects to see again in recitation or examination, and trust something to the intuitive apperceptive powers of the young? Does not the examination type of memory often tend to keep things near the surface and in the merely cognitive stage that should sink deeper and at once affect conduct and character, and for what purpose is history but the study of the moral character of men and races?

There are two dangers in teaching history in this unhistoric land, with no dim mythic background and with our intense absorption in the present. One is that we shall lapse to lesson setting and hearing. Just in proportion as a teacher is poorly equipped with knowledge he tends to become a mere exactor of work and takes time telling pupils what to do and testing to see if they have done it. But this is not teaching, but a device of ignorance, laziness, or physical weakness, or all combined. The real teacher teaches and reduces recitation to a minimum. Whoever has visited the best continental schools or studied comparatively such national educational expositions as those at St. Louis must have been acutely impressed with the fact that we exhibit what the pupil does, Europe what the teacher does. Here he says, "Go, do this, and prove to me that you have done it." There he says, "Come, let us study together; I know and will inform, interest and inspire you to go on." A little more pedagogic insight would make us ashamed of our wretched devices to conceal, excuse, or dignify our ignorance or save ourselves work. We say let the pupil find the facts for himself and then he will remember and prize them and incidentally learn to investigate. No, we should have investigated and learned to impart. The teacher should teach. We allow and even encourage callow classes to debate and discuss and weigh evidence and think we are developing judgment; they find it far easier to discuss than to learn, and are also flattered by the subtle suggestion that they can form opinions that merit the name, instead of exorcising power by their crude thoughtlets, *bombinantes in vacuo;* they are inclined to the delusion that their mental emptiness is filled and so grow complacent with their ignorance, are opinionated where experts differ, and, with more power to achieve than to receive, suffer like those who work hard on an empty stomach. Some teachers have come to fear that the pupil in the high school is actually in danger of accumulating a mass of undigested, unsystematized knowledge, and perhaps to fancy that this peril is awful and ever impending. But have any of us ever seen a dangerous mass of knowledge in any youthful mind, unless in the memory freak, and even then are we so oblivious to the laws of mental work and growth as to think that such a mass of erudition could exist in the mind without being assimilated in the child's manner, or that even if it were a vast floating plankton, our petty artificial devices of correlating, associating, linking, can have any other possible effect than to prevent it from sinking deep into the soul and keeping it on the surface against the day of examination? "Oh, teacher," said a high-school girl to a history teacher, strong in methods but weak in knowledge, "I could understand it all so well if you only wouldn't explain it!" In these days of hypermethodic pedagogy it is fitting to recall that, by the laws of his guild in the middle ages, the barber's apprentice became a master workman when he could whip up two ounces of soap into two barrels of lather. I look with some dismay upon the rank new formal methods in history, but let us not forget in this richest of all culture fields that the teacher's business is to teach and that of the pupil to learn, and that all stated recitations and examinations can never be much better than a necessary evil.[1]

The other danger is materialism. History is not primarily to teach business, tariff, economics, finance, or any utilitarian form of self-interest. There are things even in a republic yet higher than constitutions, legislature, government, machinery, politics, civics, or how to vote aright, important as these things are even for girls. Does not history for all, and must it not especially for the young, suggest as its supreme lesson the power in man and nature that makes for righteousness, and is it not this that the progress of events from age to age reveals ever more clearly? Bunsen called it God in history. Some deem it the nisus of evolution that makes the best survive and the worst perish. Should we not here and there, both at great epochs and in taking a long-ranged view of the whole panorama of events, each teacher in the way he himself can feel deepest, seek to touch the religious instinct and at least occasionally try to rise to the height of the great argument that justifies the ways of heaven to man?

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[1] Harnack has made the following five propositions to reform historical instruction in the upper stages of the Gymnasium: (1) Many dates must be learned as a skeleton for all the rest, but in the reviews, especially in the upper classes, it is sufficient for the teacher to be satisfied that the pupil can locate events at the beginning, middle, or end of a century. The exact date is unimportant save for the most vital events. (2) The history of antiquity must be extended down to the end of the age of the Roman emperors and this must be treated carefully and fully as the most important period of the history of the world. (3) The historical teacher must be sure that the student on leaving knows the present constitutional situation and also is informed on legal and political questions, especially those involved in the administration of justice. (4) The student must get some knowledge of how historical investigation is conducted. (5) Historical teaching in the upper classes must be entirely free from political influences, which generally permeate the knowledge of current events. It should also tend to become a history of the soul and spirit of man. See Monatschrift f. höhere Schulen, March–April, 1909. Vol. 8, pp. 150–161.

One of the most important points in the pedagogy of history is the way in which connection with the present is made. The present is the flower of and often the key to the past because the best things do not die. It is just as effective, if not more so, to pass from effect to cause as *vice versa.* It is a distinct gain that our text-books now usually go down nearly to contemporary events, instead of stopping one or more decades short. But this is not enough. The goal is to make the pupil understand his own times and to take a vital, not to say active, interest in its events. He must comprehend his daily paper better for his classroom work. Moreover, in general, one can say that events move with accelerating rapidity and that the latest of them are probably, on the whole, more important and will be seen to be so when they can be viewed from the historical perspective of the future, else there is no progress. "Better fifty years of Europe than a cycle of Cathay." Again, the whole world is now interesting and full of activity, and not only one or a few, but all parts of the globe are seats of stirring events. Indeed, modernism and contemporaneity are so rich and varied that not only about every old but every new fundamental principle of human progress is set forth with dramatic vividness upon the world's stage. The Eastern question means that a hitherto almost unknown or relatively stationary half of the globe is now forging to the fore with unprecedented rapidity, and that the destiny of the West is to be profoundly modified thereby. No citizen can be called educated, or even intelligent in history to-day, who is not in a more or less sympathetic rapport with current movements in China and Japan, in Manchuria, Korea, Siberia, Formosa, India, Thibet, the Straits Settlements, Australia, the Philippines, Hawaii, and the nearer East, the Young Turk movement, which is now the focus of a Pan-Islamic revival, that will show whether Mohammedanism can make terms with and assimilate modern progress and contribute to the swelling symphony of nations; in Persia, which is entering upon a new era (for all these, see the Proceedings of the two Clark University Conferences upon the Eastern Question); Africa, which is now about all parceled out to European and Moslem powers and which has now already entered a stage more interesting and important than any in its history; in the South American states, which under the head of Argentina and Chile are becoming of daily increasing moment and which the Panama Canal will bring close to us and nearer to the world; the rehabilitated, not to say resurrected Mexico; the diverse colonial policies attempting to answer the great question, how more advanced shall treat subject races; in the transformation everywhere wrought by invention, trade, industry; the new cosmic consciousness, which is abroad since the early nineties of the last century; our own rather sudden advance into world politics. Not to have made contact, at least at certain points, with about all these things, is not to know history in the making, or its best results, for they are living and not dead history. They constitute the physiology, and not merely the anatomy of the tissues woven by the historic news. Manufacture, commerce, politics, religion, now unite in demanding this knowledge for their own pressing practicalities, and so does the new larger humanism, as something integral to the culture demanded by modern life. Thus the historic teacher is suddenly placed in a new position and must take his bearings again and steer for a new goal. We must teach history backward as well as forward. If the old universal history was discredited by pedagogy, the new now demands this universal survey. So many things are now taking on world-wide dimensions that the old national and ethnic boundaries are fading, and travel, intercourse, and transportation make us all prosper or suffer, if any other nation on earth does so. Thus the world is our country and men of all climes are our fellow citizens in ever more respects. Our periscope has enlarged in space even more than archæology and the spade have enlarged it in time. There are races to-day in nearly every stage of human evolution. Science, weights and measures, coinage, arts, technology, fashions, social life, business, political movements and institutions are becoming more and more international. Thus, what does a lad know of history who can pass an examination only in the story of Greece and Rome or of his own land down to his own first school day? England, perhaps, most of all civilized lands, on account of its constitution " widening from precedent to precedent," needs to know history; but here in the United

States even our congressional debates in recent years very rarely refer to anything back of the last two or three presidencies unless for oratorical effect, and historic argumentation is more and more regarded as pedantry or rhetoric. Catholicism has a more developed historic sense than Protestantism, even if it does also illustrate the danger of too great exaltation of the past, tending toward undervaluation of the present. The thoughtful educator cannot fail to ask how many of the historic items in our school texts are really dead antiquarianism, so far as the cultivation of present efficiency is concerned. Are the early discoveries, the pre-revolutionary era, and even the War of Independence, and Washington himself, relatively overemphasized in the recommendations of the Committee of Seven and in school practice? I lately heard a normal teacher give an hour's talk to teachers on the Gulf of Mexico, beginning with Florida and swinging around to the jetties of the Mississippi; sketching the physical geography and historic significance of each, then taking up Mexico, and ending with Yucatan, in a way that made her talk a model of condensed vital, humanistic, present-day interest, so inspiring that I asked for a list of her authorities, feeling under the spell almost as if I would drop everything else and read up on this subject. In response I received a list of perhaps a dozen magazine articles and a small bunch of newspaper clippings, with a few congressional reports. She had about a dozen other similar talks concerning many other great centers of the world's work today. Little, if any, of this material could be found in any textbook, but I would go far to hear it all, and the few high-school children who heard her were no less impressed and inspired than I. I want all of this in book form and so did they. That would give true historic knowledge of the world we live in and no merely antiquarian book lore. Something like this is what our often too fragmentary "current events" might be. Only that is worth teaching about the past which vitalizes the present. Much more of this should be taught, not only in the upper grammar grades, but in the high school, and will be when the latter is freed from its abject servility to college requirements. I have more than once witnessed the disheartening spectacle of members of a strong association of secondary teachers of history, giving the chief place on their programme, and listening with chief interest to a college professor of the subject who has had a text-book or two made for them in the market, but who had no conception of the nature and needs of high-school boys and girls, laying down and justifying the iron law of entrance requirements *de haut en bas,* while the able, original teachers before him, feared to express all their own minds lest pupils they sent up should be especially scrutinized. This relation should for a time be exactly reversed and the secondary teachers should formulate the matter and methods they deem best for subfreshmen, and tell academic dons what they must give credit for, what kind of texts they want, and what true history values in the later teens really are, holding at the same time a brief for the great majority of their pupils who will not enter college or even finish the high-school course. Our academic teachers of history need a great awakening, but this can now be said to be almost certain, for several of the most insightful of them are already arousing from their somnolent antiquarian busy-work on kippered events and are feeling the force of living ones and learning what it means to get in the study of the present inspiration and interest for assimilating a knowledge of the past. The teacher of history should teach, tell, and not merely hear lessons from a text, for history is a story that is meant to be told and not crammed, nor are all of the tales *temporis præteriti,* but deal with the palpitating issues of the hour. When this new spirit prevails in the college and works down there will be a great and most needed change and history will awake from the dead.

History taught as story, lecture, or otherwise, needs a wealth of devices. In Europe there are many series of admirably planned and executed wall charts that make persons, events, customs, costumes, occupations, modes of life, real and objective, and the " picture symphony " cannot be too much emphasized for the young. Graphic curves, colored schedules for the presentation of statistics, and maps of many kinds, from historical to geological, are wanted. A few large maps on a roller board that can be pulled down on occasion, which are often about the only equipment of the teacher of history in the school, and even college, are not enough. Books, of course, including a good assortment of text-books, are needed, but they do not suffice. The resources of a pedagogical museum of history are as yet little known, as none yet exist in this country, but the extent and efficacy of this pedagogic material is not suspected.

As to the relations between natural law and history, Henry Adams[1] finds a contradiction which cannot yet be solved between modern physical conceptions of the universe and the conception of progress which it is supposed ought to inspire the teaching of history. Briefly summarized, his view is as follows: The laws of dynamics teach that while the source of energy is constant and the universe is a closed box from which nothing can escape, its higher powers always tend to fall lower. Energy is dissipated. The earth will eventually be unfit for man. The entropy of the universe will increase. All the energies of nature are slowly lapsing into heat and vanishing into space, till nothing will be left but a dead sea of energy, at its lowest level, well down toward absolute zero. The world has admitted the principles of the conservation of energy but not the dogma of its progressive degradation by dissipation and leveling. The former law seems to contain a guarantee of eternal process. Now Darwinism, on the other hand, implies that most later organic forms are higher, that development is upward. Vital energy seems to contribute something new. Man came late, when a physical decadence had already struck the earth. He came in the twilight of vegetable life, when perhaps the diameter of the sun was far greater than now. After the coal formations came an equally astonishing outburst of animal development. Can there be anything higher, e. g., a stage of mind growth? Man is not at the head of creation in all his parts but is so only as a whole. So, too, there is a contradiction between the animal man in nature and the social man of to-day. From the physical point of view, the great capitals of northern Europe will grow cold and die, and man will be driven toward the tropics, where, after perhaps exploring in Arctic expeditions the ruins of Paris and London, he will himself die. Astronomers have already seen some twenty-five stars enter a red stage and then go out. Shall we freeze or become disembodied spirits? To be sure, we have some millions of years left us; but must we not give up all the inspiration, even for youth, of the idea of indefinite progress toward perfection? There are many signs of degeneration—birth rate, army standards, insanity, tuberculosis, drugs, the diminished vitality of great cities. Even the Darwinist no longer talks of evolution but calls it transformation. In a universal system of energetics, reason is only one phase of what was known as instinct or intuition, but a lower one, just as this is lower than the vital energy that created forms. Perhaps the will may be called the ultimate potential of vital energy, the entelechy, or the last form of force. Reason perhaps is only a special tropism or a new form of motion excited by external forces. We live because we are excited. To Loeb, there is no will and back of tropisms are the physico-chemical laws. At any rate, in lower organisms what is thought will is mechanical. We may call it force with Thompson, or supernal will with Flechsig, or brain power. The tension is always higher as we go backward. Thought is degraded activity, an enfeebled function of the will due to helplessness. It is refraining from speech or act. The act is first and the idea is an arrested act. "The man who thinks is depraved," said Rousseau. The thinker is a bad animal; eats and digests badly, leaves no offspring, etc. Thus life is an immense wave spreading outward, in most directions checked, but in the direction that made man it has had unusually free room for its processes. Consciousness has stopped everywhere save with man. It is chiefly intelligence, although it might have been intuition, which has been sacrificed to it. The historian must assume that the whole function of nature has been to produce this "one-sided consciousness, this amputated intelligence, this degraded act, this truncated will." Thus, in showing the development from instinct to thought, we are describing a dissolutive process. But our college youth cannot be told that instinct is higher than reason. The latter is like the sun; the former a nebula. Students must believe that mental action is the highest energy of nature. Society needs to believe this. Reason, however, to the scientist can hardly be called an energy and is no more at least than a passive instrument of the energy called will, a cataleptic medium, which must submit to the law of force and degradation. This is the problem.

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[1] A Letter to Teachers. 1910. 214 p.

As to solutions, the law of conservation was very easy. Entropy, if it includes gods and men as well as universe, is very different. Rise and fall, expansion and contraction are necessary for the teacher, who, if he would remain an evolutionist, must insist that organic life can economize Nature's ways and that man alone can reverse her processes, raise her dissipated energies and his own to higher intensities, that he alone has the power of reversing the process of extinction, inherent everywhere else. In literary language, thought was God, energy is ultimate substance. Thought was the highest, very subtlest energy. It could hold up the sun, with Joshua. Is mind an independent energy? Consciousness seems only a phase in the decline of vitality. Reason, being the last in it, is the lowest in tension. Man's artistic power is not equal to that of some breeds of butterflies. He is not, then, the lord of creation. Descartes proposed to free man from material bondage, provided he could mechanize all other vital energies, but his proposition was not accepted. Is man's mental energy assured by his capture of some 50,000,000 steam horse power from coal, as much more from chemical and elementary sources, with his stored experiences, etc.? This contradiction makes a certain anarchy, if indeed the mental need of unity is not a weakness. Shall we admit that all the sciences are moving down an incline, that thought is degraded physical action? Can we teach upward evolution at all? Artists generally assume decadence and our astronomers teach the decline of the solar system; our geologists, the death of the earth; our physicists, the exhaustion of heat; our newspapers, the decay of society; so that man is growing timid. Society is stable if it has and wants no histories. "In the history of humanity there is always as much science as there is no history." The arrear of freedom really declines. Thus we have two schools, the degradationists, who hold that the impression of order is a delusion; and those who defy the physical sciences and believe there is real progress. Must history and sociology decline? Must it give up law or edification?

To my mind, Mr. Adams's scruple must be called largely temperamental. With my own positivistic diathesis, I should argue that if the rest of the world is running down, man on the other hand is an ascendent species, and as it is with his destinies that the historian is chiefly concerned, if he is advancing, that is enough, however the algebraic sum of devolution and evolution in the world as a whole foots up. Why is it not just as legitimate to draw encouragement for the *genus homo* by assuming as von Hartmann did, that man is sucking up into himself more and more of the total kinetic energy of this earth, and that if it is declining, it is only like a gravid or nursing mother depleting herself for her child. Hartmann even proposed the wild, weird idea, that the day might sometime come when the human race would agree to commit suicide all together, in order that the energies now monopolized by man might be restored to nature, which would thus be rejuvenated and bloom like a new Eden. To be sure, he relied on his doctrine of miserabilism, of jaded and ever more sensitized nerves that make human experience ever more algesic as one of the chief motives to this concerted suicide of the race at a pre-appointed date. This was his type of entropy as a subconscious thing. Human will has become a power in nature, an *imperium in imperio.* Says Ray Lancaster,[1] "Man is nature's rebel. Where nature says die, man says I will live." This revolt has succeeded. The kingdom of man is established. He is overcoming diseases one after another and prolonging his own life. We may soon touch the central heat of the earth as a new source of power. If the streaks on Mars are really canals, the Martians may have drawn upon this vast and perennial power for irrigation works, as N. Faguet of the French Academy, quoted by Lancaster, says. The Martians must be ahead of us, for they are older. Their world being smaller, was habitable before ours and has attained a later stage of its development. Very likely they have a world plan and a common government, one federation, and parliament of Martian men, and are able to regulate their climate and thus prolong their life and health indefinitely under conditions which a cruder race could never cope with. Thus, we are told we may draw inspiration from them as to our own future here. We have no more reason to call them senile or degenerate than the cave-dwellers or the great Saurians of the Tertiary Age had to so regard modern man could they have seen him. Moreover, there is much reason to conceive our own species as a race now in its adolescent stage with its best history yet to be made. Metschnikoff thinks we should live two or three score years longer on the average, in order to round out our life, and hygienists tell us there are means within our reach to prolong it fifteen years.

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[1] Nature and Man. His Romain's Lecture, 1905.

Finally, a strong case could be made out for the thesis that normal senescence, either in the race or in the individual, is no whit less euphorious than adolescence; that in a finally rounded out life the love of death is just as intense as the struggle to survive. The joys of old age have often been depicted, from Cicero down, albeit in a thin, falsetto way, because humanity has not yet achieved true and complete senescence. We have no orientation as to which way is up and which down from an absolute standpoint. Now, devolution seems pathetic, but all writers of the decadent school, from Ecclesiastes down, not only have grim pleasure in working out the tenuous philosophy of disenchantment and renunciation, but even they may sometime come to be regarded as the unconscious prophets of a new gospel of entropy. The excursion or cycle from nebulæ up to man and back to cosmic mist may, if not as Hartmann urges (in his *Phänomanologie des sittlichen Bewusstseins*), be a curative or therapeutic process for an absolute being who broke out in pimples which we call worlds, and thus found surcease from inner pain. The whole process was for him the healing of a trauma in a transcendental being. The net result of it all—the anabasis and the katabasis—may be something infinitely good, beautiful, and true, that only religion in its most exalted moods can feel, but is not yet able to elaborate. At any rate, religion has always claimed to bring not only consolation, but compensation, for all human mundane woes and ills, even death of the individual, the species and cosmic dissolution. When young upstart man has grown to his full psychic stature and nations and men live out their lives fully and are not so pathetically cut off in their prime, when the pathos of the Cross ceases to be the chief feature of Christianity, when religions that make absorption in the one and all the blissful consummation of human felicity are translated into terms of individual human experience, it will be seen that in their present form most religions are colored shadows, mystic foregleams of a point of view yet to be worked out, and that can be only fully realized when what we call the way down has been as completely exploited by a finished race as the way up now is; we shall understand then that there is progress alike in every step of both, and that such Scriptures as all the religions of hope here or hereafter represent have been possible and are warranted only because man has not yet learned to grow old aright or completely, but has been so far absorbed in making the very most and best of its youthful stages of development. All old men and people to-day are precociously so, and what the world now needs is a philosophy or doctrine of life from a normal centenarian point of view that has outgrown illusions and temporal fashions of thought, and is intent upon the eternal values. We must not forget that every stage of life has its nascences which need development. The world is now coming to recognize and to regain these lost chords of childhood, and not only infancy and childhood, but the culture of our day is indefinitely enriched thereby, and so are our efforts for race development for primitive people. A similar new sympathetic rapport toward senescence is now needed, and if all present signs fail not, is impending. It is especially to be desired in a new country like our own, which more than any other is the very apotheosis of youth, without much history and reckless of all futurities, but wastefully extravagant and precipitately devoted to the exploitation of the present early adult stage. We need to meditate up as well as down the line of life, gather all the widely scattered fragments of wisdom of stages and letters, administer, not chloroform, but *elixir vitæ*, if we can find it, to men of three, four, or more score, realize the present disastrous, deep, unconscious contempt felt for old age, understand, too, how sadly justified this contempt too often is, because men's errors and extravagances have made their old age premature and contemptible because of querulous crankiness and pessimism. Perhaps we ought to organize a psycho-pedagogic movement to dignify and happify old age, and saving it from degradation, study it as we have studied children, defective backward races, to evolve all possible utilities for it, to rescue its estate in institutions which are often antechambers for dissolution, and pervaded with the atmosphere of the charnel house. But here begins, rather than ends, the chapter yet to be written. The world awaits a treatise on senescence that can sum up as copious a body of knowledge as can be done on adolescence.

I am unable to understand why, if one has the true historic spirit and has once kindled in his soul the lust to know how things as they now are, came to be, he should not welcome evolution with his whole heart; why, if one loves the revelations of the spade among the ancient ruins of the East, he should not also love the teachings of the paleontologists that shed light upon the origin of man himself. We know nothing truly until we know its history, for the key to all that is is its *Werden*. We explore cairns, cromlechs, monuments, etc., and why are not the works of the Java man and even the amphioxus, the parent of all vertebrates, satisfying to a curiosity psychologically the same? What is the meaning, too, of the dim, wavering line between the historic and the prehistoric? Are not Haeckel and Darwin historians? How can anyone once inspired by the historic muse find satisfaction in holding that the world was made in six days, or in any form of creationism? The chief answer, I find, is that the longer view of history is hard and confusing, so that unroomy minds find great complacency in setting such temporal bounds to change. Our life is so ephemeral that the bigness of time is confusing. The sense of eternal flux, too, is dizzying. Thus it is restful to feel that all began relatively a few years ago, or that things always were much the same as now, that there was a definite beginning. Savages are so myopic for time that their creation myths are often located very near. This elimination of the past enables us at least to devote ourselves to the present as our chief concern. Thus children, too, lack historic sense. For them the world is young, not old, while tradition trailing back through millennia seems dead and ought to be buried. Children's interest in history is always more or less fictitious and artificial. Nothing really captivates them that might not happen to-day. The prolongation of childhood is in order that it may adjust to the present environment which grows more complex and harder to master. Their historic lore may come handy to them later in life like arithmetic, but it serves little purpose for most. I have sometimes fancied that a purely fictitious and imaginary history might be constructed for the young that would be more truly edifying than the recorded facts. To create such an ideal story of origins would be an interesting, if not inspiring, task for a creative pedagogic mind, who might conflate from the stories of other lands, from literature, and from fancy, an account of the past that would at least captivate and inspire, especially when we reflect that really, despite the endless vista of the past, the best history cannot yet be written because it has not yet transpired. The best things have not happened yet and man is not yet fully evolved. In order to be interesting for the young, the history of remote days must be more or less modernized. The historian must come to the child, and only the adult must be compelled to come to him. Hence, at least, we must condemn the complete elimination of the early mythic period in which the history of older nations always began, which is the staff of life to children, the kindler of historic interest, but which the critical modern historian casts as rubbish to the void. For the teacher in the grades to follow the example of this type of historians is unpedagogic and pedantic, for it hamstrings the historic interest for children in the teens. All such work and the higher historic criticism, splendid as are its achievements, are not for the school. Again, the severely scientific method and viewpoint makes the lapse of things seem fatalistic. Not only are great men made by epochs, but they make epochs.

Youth must feel that great things must be done now, here and by them, and are sure to be done by their contemporaries. Learned historians have not done and will not do them, but heroes are never antiquarians. Their knowledge of the past is limited and many of them owe more or less of their energy and faith to ignorance of the facts and logic which history now inculcates. We must not forget, too, that the past is mostly unrecorded. The human soul, by a very natural instinct, tends to bury its dead and actively cultivates a graveyard forgettery and thereby makes action freer, less bound by conventions and less conscious, while the will is less oppressed by memory. The best results of history are inherited and not recollected, not only by society and all its institutions, but by the individual soul who carries his history written in every tissue of his body and in every faculty of his soul. Hence, the best results from the past that survive to-day are not found in books. Perhaps this distinction was adumbrated in the antique relation between Mnemosyne and Clio. The mnemes and engrammes of Semon [1] are at any rate, if they exist, the most vital and organic of all records. There can be little doubt that there is a deep human instinct to throw away everything from the past that man cannot idealize and make pragmatic. Without idealization and utilization, history would be a mere Chinese chronicle. Very likely, most critical scientific historians themselves are unconscious victims of this very tendency. and if we had a contemporary moving picture of the events they describe, they, too, would be found to have idealized far beyond their own conception of accuracy. When we consider the voluminous results collected in the German periodical *Aussage*,[2] which showed the impossibility of testifying correctly to the simplest events most lately seen, we realize the limitations of history afresh, the main consideration of which is what is the nature of the unconscious motive that infallibly transforms the past. Without some gratification of the instinct to re-interpret and restate, the historian would have no motive to turn from absorbing present reality to antiquarian research of any kind. At the very best, he can only bring clearer and higher standards of judgment for the good and evil that made up the past, which those who lived in it did not understand.

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[1] Richard Semon. Die Mneme als erhaltendes Princip des organischen Geschehens. Engelmann. Leipzig, 1904. 353 p.

[2] Beiträge zur Psychologie der Aussage, herausgegeben von L. W. Stern, Leipzig.

What and where are the chief events of the world to-day, the events most cardinal for its future history? They are found in the relations between higher and lower civilizations where these are brought into closest opposition over large ethnic areas, in China, India, Asia Minor, Egypt, in every part of Africa and South America, and about all the islands of the world, and in this country, our relations to the Negro, Indian and immigrants, not to mention new welfare work in city slums. The old isolation of political and racial unities has gone, and geographical, ethnologic, social, political, industrial segregation is giving place to not only contact, but attrition. Feeble stocks are dying out and often lapse to virtual slavery under various names and schemes. Strong native races are being prodded on up all the acclivities of progress. Even the vast Moslem world has seen a great light and is conclusively demonstrating to the incredulous that Islam can assimilate every valuable element of modern learning and social institution, perhaps, just as well as Christianity, despite the persistent doubts of the votaries of the latter and despite the prejudices of centuries of antagonism from the Crusades down. Writing, as I do, just after having attended the Second Clark University Conference of fifteen sessions, this time on the problems of the Near East and Africa, attended by several score of experts (October, 1910), I cannot conceive how any professor of history or economics should not be smitten with the passion to go to these lands where history is in the making. Here humanity is making experiments, political, social, hygienic, just as truly as individuals experiment in laboratories, or pathologists observe nature's experiments in hospitals. The untraveled teacher of history is only a book worker and his ineffectiveness is in all points similar to that of the teacher of science without the laboratory. Only after having established vital relations of observation and interest in the state and changes of the present, does the true historic impulse to know something of their causes arise. History without this is hollow and falsetto, but yet this is its status in most of our schools and colleges to-day because the vital touch with the present has not yet been effected. From the above addresses, the conviction is irresistible that the real student of history must in the end go back of documents, acts of rulers and parliaments, to ethnological bases, and that especially in all questions involving undeveloped peoples the anthropologist must very often be looked to for the last word, unless, indeed, the physical geographer, geologist, climatologist does not qualify himself to say it. Even language differentiations are now by many believed to be due to geographical isolation, mountains, seas, and rivers, just as truly as are differentiations of allied biological forms. We do know a little about the psychology of homesickness, but such a conference breeds an opposite distemper, viz., *das Sehnen in die Ferne,* or a veritable passion to get away from our habitual work and its routine and roam through the countries of the world, where great changes are occurring and where masses of men are seething, and societies are undergoing reconstruction or are in the throes of the birth of the new order of things. We could not teach geology vitally on a prairie, but must make excursions to mountains and seas, and if it be feasible see a volcano express seismic action, etc.; nor can we study zoölogy by analyzing dead forms, nor biology from an herbarium. Of course history needs scribes and bookworms and the careful comparison of original documents, but this is not the way of approach for the young, nor was it that for the race. Who could be more unfit to help on the processes of the world in those lands where the chief elements of success lie in the unrest and difficulty of adaptation of those in the lower stages of advancement than the average modern professor of history? Its goal is to understand the sequent stages of progress, to grade institutions and activities on developmental scales. What do he or his pupils in this field usually know or care for psychogenetic laws? It is concerning these that the modern student needs new orientation. History-teaching in this new republican land, at least, must turn right about face.

CHAPTER XVII

PEDAGOGY AND THE PRESS

Freedom of the American press—The growth and present statistics concerning it—The Associated Press—The hygiene of its form—Controlled by advertisers—Its mendacity—The yellow press—Uses of daily press for history—The rôle of the owner—Peeping through keyholes—Suggesting crime—Sensationalism—Good points of the press—The Sunday newspaper from an educational and moral point of view—The press and the professor—Illustrations from personal experience—A school or college of journalism—An endowed newspaper—How teachers and editors could get together—The press should discuss and criticise itself.

THE first and most decisive fight for the freedom of the press in this country was the famous suit brought against Callender in 1800 under the odious Sedition Act for a libelous pamphlet entitled " The prospect before us " where malicious statements were made against the Government and President Adams. Callender was " a brilliant, but rather mercenary product of Grub Street," who was tried in Richmond before the erratic and partisan Judge Chase, where, to the astonishment and dismay of the brilliant galaxy of lawyers who defended him, he was convicted and sentenced to nine months imprisonment, fined, and required to give sureties for good behavior. The prisoner continued from his cell to issue libels until he was at last pardoned by Jefferson.[1] That this famous trial had any permanent effect no one would claim. The newspaper, indeed, to-day is a kind of court.[2] The Crerar Library has some 3,000 magazines and these Gilbert calls " a section of the day of judgment," but he compares an unregulated press to "letting loose all the half-crazed, speed-intoxicated automobilists" and thinks they should be no less regulated by law than these. It may be that they are the advance guard of the long-dreamed-of parliament of man, the many-voiced journalism of the world, and may become sometime a kind of international court for august world-verdicts. They are also said to be to society what sight and hearing are to the individual.[1]

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[1] See Decisive Battles of the Law, by F. T. Hill. Harper's Mag. Sept., 1907. Vol. 115, p. 538.

[2] See S. Gilbert, The Newspaper as a Judiciary. Am. Jour. of Sociol. Nov., 1906. Vol. 12, p. 288.

The American Newspaper Annual for 1909 lists 23,894 publications in this country. Of these 2,584 are dailies, 17,088 weeklies, 2,873 monthlies. Newspaper-making is, therefore, first of all a business, and editors have to both study and create appetites and tastes as much as fashion-makers. The home-read paper that reaches the women of a household, who are the buyers, makes now the best basis for advertising and therefore is the most solid foundation on which a newspaper can rest. This fact has had a great indirect influence in keeping advertisements clean, for the women whom the merchant meets in these columns will not tolerate impurity. Again, the day of the party organ, as C. H. Taylor well says, has passed and self-respecting weeklies, and even dailies, are no longer the puppets of politicians. The day, too, has passed when they are vehicles of an editor's oracular opinions. Thus the newspaper can no longer be dogmatic or be the mouthpiece of an individual. There is no greater enterprise in any business to-day than in this field, where there are great successes as well as great failures. An experienced editor tells us that in his own lifetime he has seen 67 daily newspapers born and die in New York alone. Since the cable business began in 1860 at $5 a word (now reduced to ten cents a word), news gathering has been revolutionized and perhaps the wireless telegraph is likely to make as radical changes as did the telephone. The growth of the news-gathering facilities has been almost incredible. On the whole, despite the many degenerative influences at work to-day, editors are realizing more and more their responsibilities to the public, which are perhaps equaled by almost no other class.

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[1] See D. F. Wilcox, The American Newspaper: A Study in Social Psychology. Annals of the Am. Acad. Pol. and Soc. Sci., July, 1900. Vol. 16, p. 56. C. A. Dunway, The Development of the Freedom of the Press in Massachusetts. N. Y., Macmillan, 1906. 202 p.

The Associated Press is the result of various lines of effort, and followed a number of tentative organizations that were small at first. Under the Illinois Charter of 1900, every vestige of stock held was abolished and it is to-day a purely coöperative, nonprofit-earning organization. It is simply "a society of newspaper publishers formed to exchange the news of their territories and to gather the foreign news of the world." It is by compulsion nonpartisan. It probably numbers 1,000 papers of every shade of political and religious opinion, so that the news it collects and distributes must be absolutely impartial and this is made the prime requisite. The news must be accurate. There are some 1,000 or 2,000 salaried employees, but these represent only a fraction of those who contribute directly or indirectly, on space pay. Indeed, nearly every paper has some one in its office who does this. Some 50,000 or 75,000 words of news each day are given to the office besides those gathered by its own agents. It has also representatives in every large foreign city. The budget of news sent out each day is probably from 35 to 50 columns of an average paper, but is sometimes trimmed down to the "pony form" of a few thousand words a day to small papers. It has scores of thousands of miles of leased telegraph wire so that nearly every office is connected with every other. The intelligence of the Associated Press used to be called "the flimsy," but now, since the typewriter has been adapted to the telegraph, the method has become less clumsy and far more effective. All kinds of large businesses make frequent use of its services.

The newspaper is thus an educational factor of growing and already incalculable importance in its influence upon the eye, brain, mind, and morals. Perhaps its chief effect is that it inclines all who come under its influence to live intensely in the present and to be incessantly adjusting to a changing environment. Every morning and evening we post our intelligence up to date on a variety of topics selected out from pages of matter which we omit. Past history pales, the present is so absorbing. The average man of the street here turns out surprisingly informed and entertains and instructs you on all sorts of matters in a way you never find on the Continent of

Europe. "To read the papers is the only way not to be a dead un." If you have missed a morning paper, the first friend you meet tells you the news. We are mortified if we read yesterday's journal by mistake. To know the latest news gives great advantage in forecasting the future, and to do so aright often means a fortune. A well-equipped clippings bureau will, in a short time, accumulate a mass of information at five cents an item on any one or more of a thousand themes, covering almost the whole field of human interests from jokes and after-dinner stories to x-rays and the latest discoveries or advertisements of rival firms. This acute fixation on the present often means triviality, so that many papers show no interest in large questions and have little perspective. One editor declared that his ideal was to have an eye or an ear at every keyhole. Every interest, moreover, has its paid *claqueurs,* so that in a few it is already impossible to distinguish an editorial from an advertisement. Some are not yellow, but red. None are green and very few white. The loudest of them pant, yell, and shriek, and perform any almost hysterical antic to attract attention. Very few conform to the old English ideal of being "edited by gentlemen for gentlemen." Even for news, the man of one paper is likely to remain very ignorant and he must read several for comparison in order to infer the truth from the various doctored forms to which news is subjected. Our newspapers are not a forum, or even a plebiscite, but they are more like crazy quilts or spatter work in the hope that there will be in all of them something for every palate. Some are cynical, some pessimistic, some lush with epicureanism. Some accept no explanation except the worst, as if it were wise to assume that there is no goodness or purity in the world, and there is every style, from snappy, staccato, with a strong tang of slanginess, to grave and affectedly judicial, if not philosophical. There are journals of journals whose editors attempt to read and cull for others. No library keeps many files and most are next day or week destroyed and their content forgotten. Thoroughness in reading them would surely be fatal, but, on the other hand, what is the effect of snatching quickly from superficial skimming and skipping by which method we acquire a mental content about as permanent as the scenery from a car window?

Wilcox, who studied 147 of our leading dailies, suggests that the advertising sheet and the newspapers be so separated that each would have to pay for itself and that this would increase legal responsibility of journals for publishing only reliable news. He found ten years ago that only in Boston and New York were there statistical bureaus for the collection and distribution of general municipal news. Here the government is encroaching on the field of the newspaper in establishing public employment bureaus, which reduce the "want-ad" columns. The competition between them is not to get the most accurate but the first reports, and all exaggerate the importance of being up to date. News should be for use, not primarily for stimulation, and headlines should be reliable indexes of what articles contain—as they are not in a large section of the press to-day. The newspaper business "is getting farther and farther away from the profession of journalism." The review of books and art is declining, as is even the magazine supplement with high literary standards. The articles in the "home-study circle" were by specialists. The number of papers, too, that carry the union label has increased. Many of them have mottoes, such as "all the news all the time," "only for new and true," "interests of all classes defended," "if new and true, not otherwise," "if you see it in the *Sun*, it's so." Political partisanship is, on the whole, less all-dominant than it was. Wilcox points out how greatly the character of the press in different cities varies, placing some last and others first in political, business news, proportion of illustrations, sporting, foreign, local, rural news, advertisements, vice and crime, literature, editorials, and found that the percentage of space in news of crime, pictures, want and medical advertisements, almost always increased with circulation, while the opposite was true of political news, editorials and exchanges. Philadelphia is said to lead in society news, Pittsburg in retail advertisements, etc. The larger a population is the more numerous are the papers, and what is more important, the greater the bulk of reading matter offered to the same constituency. The newspaper habit is so developed that children have departments and are often urged to read the papers.

H. J. Haskell[1] candidly compares the press to Browning's "The Ring and the Book," wherein the same story is told in many ways, and quotes the editors who do not "believe in unnecessary perjury," and perhaps "can only pity the man who has looked out upon the world solely from the dull and monotonous plane of ordinary veracity." Few would now agree with Lord Salisbury, who opposed all the cheap newspapers as incendiary disturbers of the old order, although some would very likely regard the newspaper public as a "poor inconsequential creature at best." As true histories are not usually thought very attractive, there is constant temptation, if not to fake—which few decent newspapers do deliberately—to use high colors, for the problems of the newspaper and those of democracy are about the same; and yet the country will not soon forget the famous suit inspired by Roosevelt against a journal in New York and one in Indianapolis for perverting the truth, nor the absolute denial by Mayor Gaynor that he had called a delegate, who asked him to suppress prize-ring films, " A fool sent by fools." A newspaper, just starting with the enormous expense now necessary and in the great uncertainty of its early days, may find it hard to resist a dollar a line for advertisements so printed as to seem to be pure reading matter, and a real endowed press may not come for a long time, and may not bring a newspaper millennium which its ideal often inspires. Another ominous danger often pointed out is the control of several papers by one man, like Lord Northcliffe in England, and Hearst in the United States. If such men desire to use the big stick and have plenty of money and no scruples or sense of responsibility they can wield a great influence for harm. The very fact that the press is sometimes not taken seriously tends to augment this irresponsibility. On the other hand, J. F. Rhodes acknowledges his great indebtedness to the newspapers in the Civil War time as furnishing historic material he could not otherwise find.[1] That the press is often an indefatigable and very ingenious and successful spy upon domestic privacies and that some few disreputables have used the results of such investigations in a way perilously near to blackmailing, is well remembered in this country. That certain sections of some papers are under the control of unscrupulous promoters in their financial topics is also as notorious as muckraking. A professor in Oregon even suggests a newspaper referendum as a last appeal from the decisions of the highest courts in the country, but desperate as that is, there have been cases where newspapers have laid themselves open for contempt in a similar way. Newspapers are rarely now expected to " deliver the goods " politically.[2]

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[1] The Public, the Newspaper's Problem. Outlook, 1909. Vol. 91, p. 791.

J. E. Rogers [3] urges that the American press " seeks to echo and cater to taste rather than to shape it." He seeks to give a psychological explanation of the influence of the American newspaper. If it is getting worse so are the people, although it may be that most papers are rather better than the average of those who read them. He quotes President Hadley to the effect that public opinion is not one but many and that there are large groups that hold opposite points of view on great questions. Most American newspapers are now, first of all, controlled by rich men or syndicates of them, who have outside interests and own the majority of stock in newspapers to help on their schemes and to prevent criticism. Their interests are the ultimate source of appeal and woe to the editor who admits anything counter to them! Thus the interests of great trusts and corporations are, first of all, advanced and safeguarded by the newspapers that are thus controlled. It almost seems as though the very fact that they are absolutely servile in these respects prompts them to seek recompense for the wounded sense of freedom by a wild license of utterance in other respects. Next comes the interest of the chief advertisers, for here often lie the larger part of the profits of the paper. Every journal, of course, must first of all succeed financially. The expenses not only of the plant but of the running of a daily are immense, and these the advertiser largely pays. Rogers cites typical cases where all mention of even important news has been suppressed at the request of advertisers whose business would be damaged. "The book reviewer must not condemn too strongly the books of that publishing house that advertises liberally, nor must the theatrical critic abuse the plays of the theatrical trust," for "many of our large newspapers have become, first and foremost, advertising agencies," so that "if there is too much news it is thrown into the wastebasket, while the advertisements are printed." Even "the editor gets his orders from the business manager, who gets his orders from the owner of the paper." Third comes the editor, who determines what news and literary matter shall go in and how it shall be ordered; he perhaps directs reporters, invents schemes, or in some cases writes editorials and occasionally has overnight to reverse the policy of his pages, making excuses as best he may. I believe that this loss of real freedom is the psychological cause of the riotous abuses of the freedom that remains. Of course there are papers that at great sacrifices try to educate the people up, and at the other extreme those who educate the people downward. Perhaps, as Lydston in "The Diseases of Society," quoted by Rogers, says: "America has for many years furnished conditions peculiarly favorable to degeneracy, including strenuosity, lust for wealth, social distinctions, fame, display, late hours, alcohol. The social body is growing more and more neuropathic." The American editor, says Rogers, must first of all have audacity and the spirit of adventure. He must be original, always fruitful in devising new stunts and novelties that startle or amuse. His headlines must flame with alluring type and perhaps even colors, for he must above all advertise his paper. There is hot competition in this field and a certain swaggering spirit of independence. Cupidity and love of ease and of power play their rôle. Very prominent in the psychology of American journalism is "the national trait of curiosity." The American, says Rogers in substance, is investigator, inventor, explorer, and an adventurer by nature, inquisitive as well as acquisitive. He cares not for the past, but is very anxious to pry into all kinds of business, social, domestic, professional secrets. The young reporter loves to assume the rôle of a sleuth, to ferret, to outdo the detectives, to work up clews. The most degenerate of our papers have often encouraged those who peep through keyholes, climb trees to listen at windows, cross-examine, almost by third-degree methods, reluctant victims of their interviews, once in a while visiting people under assumed rôles. Again, every paper, too, seeks to outdo every other by new beats, stunts, extras, and to be the first to get the latest news, and especially the latest thrill. The limelight fascinates and sometimes makes unstable young brains news fakirs. Prof. W. I. Thomas well says: "Yellow journalism owes its existence to the persistence in men of primitive emotions of an antisocial character, and to the fact that emotions are pleasurable no matter what their origin and that people will pay to experience a shock." Things are prone to be handled from the "disaster standpoint," as if human calamity was ghoulishly reveled in. Individual and social interests are powerless of themselves against the exploitation and distortion of the yellow press. Just as foods or medicines are boomed by advertising, so are vice, crime, and vulgarity by "the existence and popularity of the most highly elaborated organ of untruth ever developed in the history of society." Thus "the prizes of journalism are not for those who can think soundly or write well." "What editor to-day controls his paper? I can think of but one, dear old Henry Watterson, a relic of the golden age. Where is there an editor to-day like Dana, Greeley, Halstead, McCullagh, Hyde, Joseph Medill, Raymond—a man who makes his paper's policy the expression of himself alone . . . the owners of the newspapers are business men; they want dividends . . . the journalist proper can never be more than the hired man of a great paper, so a school of journalism does not promise the sort of success that means the exercise of the real power of journalism." It was the newspapers' persistent attacks upon the trusts and corporations that compelled the great capitalists in self-preservation to own journals to protect their railways, mines, and steamship lines. Our people read far more than they weigh evidence. Thus, if we view the American newspaper from the educational standpoint the verdict on the whole cannot be favorable. Yet, on the other hand, we have illustrations of good, conservative, and truthful journalism, with straightforward editorials, news as uncolored as it can be made without doctoring, with nothing dramatic, with modest and truthful headlines, by men who are not always alert to know, as a Western editor said he must know above all things, "where hell was going to break out next and have a reporter on the spot." The good newspaper never attempts to cajole, fix prejudice, or arouse feeling; it is never frenzied, trivializing, muckraking; it never lives close to the law and seeks to have libel legislation reconstructed in its own interests; it is not chiefly intent upon dishing up for the public just what it wants; does not indulge in bluff; does not buy stolen correspondence or shadow or haunt people it dislikes to give no interpretation except the worst; thinks sometimes of the pain and suffering errors may cause. Valuable service has been done to society by reporters who have shut themselves in prisons, madhouses, visited infested regions, poorhouses. The good paper has no silly season, does not make news, eschews impressionism. As the *Evening Post,* quoted by Rogers, well says, "No one attempting to derive an estimate of the present conditions in New York from the front-page contents of many of our leading newspapers could be blamed for concluding that society is on the verge of deplorable anarchy." All men are not grafters and many officials are incorruptible. The service of the press in exposing veritable and notorious abuse is beyond all praise. They have stimulated officials to their duty, have found the men higher up, and often brought upon them the penalties they deserve. The work of the Home Study Circle has been beneficent. It has enlarged rather than reduced the intellectual lives of its readers. It has tended to the observance rather than the flouting of law, the reduction instead of the increase of prejudice and bias.[1]

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[1] J. F. Rhodes, Newspapers as Historical Sources. Atlantic Monthly, May, 1909. Vol. 103, p. 650.

[2] Is an Honest Newspaper Possible? by a New York Editor. Atlantic Monthly, Oct., 1908. Vol. 102, p. 441. The Yellow Press, by C. Whibley. The Bookman, May, 1907. Vol. 25, p. 239. The Psychology of the Yellow Press, by W. I. Thomas. American Magazine, 1907. p. 491.

[3] The American Newspaper. Chicago, 1909. 213 p.

S. N. Sing[2] gives suggestive instances of inside newspaper ways from his own experience. He contributed an article on his impressions of our country over his own name, and when it appeared it had been so transformed that he says, "All that I recognized as my own work was the signature." In other words, the article had been made over and opinions obnoxious to the writer ascribed to him. This custom, this author tells us, is very common with a certain class of journalists for whom he says he has "a deal of admiration of much the same quality that I bestow upon a clever pickpocket, a shoplifter, an ingenious forger, or an astute safe-blower." "If the newspaper men were to make confession of the stories that they have made up and given currency to, the disclosure certainly would be most startling." However much we condemn yellow journalism, it has a kind of fascination, but it is like that of a drug and may act as a dope. "If a well-known character suddenly dies and a photograph of him is not at hand, the picture of another man who looks somewhat like him is substituted." The pictures taken of a noted theater fire were in many cases used later to illustrate steam explosions, railway wrecks, etc. One New York daily put out a special edition for the San Francisco fire abounding in illustrations, waiting only till the quickest train could make the transit, and all would have gone well, only the editors failed to notice that each picture bore the words, "taken in 1895." Thus, the whole edition was a faked one. Of course there would be more libel and defamation suits if our great dailies did not all have their own lawyers not only to defend but to advise and suggest just how far they dare go, e. g., in threatening delinquent creditors through the postal service, despite the strict law in this respect. Sing tells us that many news gatherers make a practice of stealing people's ideas, extracted not only by talk, but from articles that are rejected, returned to authors, but afterwards cleverly used in substance. These are idea grafters. Again, the associated syndicates in the United States have tended to crush out many promising young writers who entered the profession as free lances. There was a time when vigorous young men and women writers found some scope for their talent, if they had any, in the press, but now, the ready prints reduce the number of authors by means of their stereotyped plates. These sometimes compose three-quarters of a journal, although the reader is left to suppose that everything is composed in the office and has some local color. Despite the fact that many newspapers have entered upon charity works, such as distribution of milk to babies, outings for poor children, employment bureaus free of charge, occasionally finding lost children and detecting criminals, these activities with the best construction put upon them do not atone for their defects and there are those who believe that "the time is not far distant when every sheet in America will be of the yellow order."

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[1] See Journalism in the United States from 1690 to 1872, by Frederic Hudson, N. Y. 1873, 789 p., which is the most serious attempt to date, to present the history of American journalism. In an interesting series of nine articles by different representative newspaper men, published in The Bookman, beginning in March, 1904, one writer stresses the fact that reporters are born quite as much as made. The peculiar tact for collecting information, the instinct or perhaps the temperament to shape it in a way the public like is a gift that cannot be taught. It is amazing to see how different individuals in a reportorial staff treat the same event.

[2] The American Newspaper: Its Secret Methods. Living Age, March, 1909. Vol. 260, pp. 720–725 and 799–804.

We have, too, within recent years had various articles along the line illustrated by H. M. Winslow.[1] Despite all these defects, however, the newspaper has become indispensable to every intelligent citizen, and if, on the whole, its moral character is not improving—for all such wholesale estimates are impossible—the best newspapers are just as surely growing better as the worst are growing worse. That this work ought to be elevated to the rank of a profession with a good academic course to prepare for it, none can doubt. There is no such mirror of human life in all its aspects. The trouble is, most reading of the newspapers is done in the easiest and most relaxed hours as busy work. Pathetic as is the spectacle of the undermined prosperity of a number of our older and most respectable white journals by upstart yellow competitors, we cannot, on the whole, take a pessimistic attitude. Among all the special journals, we ought now to have one on journalism itself which should discuss nothing but such problems as the above, for the world is just as interested in the morale and personal business methods and office rules and instructions to reporters, as it is in popular illustrative articles describing the material organization of a great daily. That is seen in the fact that newspaper work is playing a rapidly increasing rôle in fiction. Apprenticeship to the business is by many now claimed to be an excellent education for young men graduates of college, and even high school, in sharpening their wits, giving them ready utterance, and teaching them the world. Surely no records in the world's history ever began to be so clear a mirror of all that goes on day by day as the newspaper. What would not antiquarians give for a single copy of a journal reflecting all the items of the life in Rome, Athens, and Babylon, for a single day, such as can be bought for a cent in any great city to-day! Carefully selected papers and departments would be indispensable objects of study in teaching contemporary history according to the method advocated on p. 299. The culture value of a work on the modern newspaper considered from every point of view could be made to be very great, quite apart from its function of professional preparation. Without the aid of the press, contemporary history is impossible and if, as some think, the sanest man is he who is in closest rapport with all his present environment, far and near, and is plastic enough to adjust to it in the largest sense of that term, from merely knowing to modifying his mode of life, etc., it follows that a higher degree of sanity is possible to-day on account of this agency.[1] As to papers for children themselves, we have now a very wide range for choice. Few of them ring true to childhood, but have the falsetto note that suggests that they are prepared by childless adults and not by those with much real experience in parenthood, and their illustrations are often mawkish from the child's standpoint. Their content needs to be fed to the child by adult reading and is not grasped with avidity by children themselves. The new child dispensation has not touched the editors with its transforming and regenerating influences.

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[1] See Confessions of a Newspaper Woman. Atlantic Monthly, Feb., 1905. Vol. 95, p. 206.

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[1] See Newspapers and Periodicals. Chap. 15 in Dexter's History of Education in the United States. N. Y., Macmillan, 1904. 656 p.

I lately gathered all the Sunday editions of newspapers I could for one day, 17 in number, the smallest with 12 and the largest with 72 pages, the latter enough, as I roughly figured, if in good 8-point type to make a volume of about 700 pages. They differed as much in character as in size. The first feature section in some of them consisted of several juvenile and would-be humorous front pages execrably drawn and hideously colored, in the form of picture-stories setting forth the adventures of Buster Brown, The Yellow Kid, Foxy Grandpa, Gloomy Gus, Mugsy, Widow Wise, Sunny Jim, Willy Hop, Jocko the Monk, Asa Spades, Opie Dilldock, Mr. Rube Hayseed, Fatty, The Old Maid, Uncle Mun, Sim Shorty, Mr. Lanky Longlegs, Tommy Rot, The Rooter, Quilly Queer, Rob the Rubber, Mr. Johnny Haha, the Katzenjammer Kids, Happy Hooligan, and a kind of parody on a parody entitled, "The Bingville Bugle." The above attempts at personification generally represent the very Walpurgis-night dream of phantasy run mad. Some are violent abstractions of single qualities that are ultra burlesque, and others have no aim or purpose that is intelligible to the ordinary observer. These weird, half-human freaks are put through sets of adventures, the chief feature of which is fooling and being fooled. They are blown into the air, submerged in the sea, dynamited, shot, roasted, transformed, they grow large and tall or shrivel in size, have blood-curdling dreams; indeed, there is nothing in the chronicles of madhouse fancy, of crime, war, or disaster, that does not befall them, and yet everything is humoresque. The dog, cat, parrot, rabbit, monkey, frog, pig, often play the leading rôle. They dance, talk, perform all sorts of human acts and antics, and cut up high jinks and all conceivable didoes, capers, and pranks. Animals do human and humans do animal things and this is supposed to make the fun fast and furious. Both are generally biological impossibilities and their performances have no relation to facts. From all this sudsy ooze of arrant nonsense, not one in my day's samples has the slightest discernible permanent value. There is nothing educational, nothing that could for a moment be conceived to be real; there is nothing approaching wit but the writer gets down on his all-fours to be humorous. I have taken much pains to observe the effects of this newspaper slush upon children, to whom it is mostly addressed, and have often tried to explain it to those who could not read; but if even these laugh at it, as they sometimes do, there is generally a note of contempt and their hilarity is like that which would be caused by mature and dignified men and women turning somersaults, or going far out of their way, as if smitten with an unreasoning passion to make children laugh. All this distinctly dulls the appetite for better and less tawdry mental pabulum. It fills the brain with whimsies. The children interested in it at all show a trace of the same type of shame as do adults who secretly buy and read yellow journals, as if they were indulging in surreptitious and rather discreditable forms of relaxation. It is not mainly that time and effort might be so much better spent, but among the dominant notes in it all is the same disrespect for and often contempt of adults that made Peck's Bad Boy so degenerative in this respect. In a large part of it, tricks of every kind are played upon adults. Every imaginable liberty is taken with truth. Animals are abused in all ways. Policemen, teachers, clergymen, and salespeople of what children like, suffer most. The poetry is doggerel, the art execrable, the bathos of it all about as de-educational as can be conceived. The craziest myths of the lowest savages are not more disintegrating to the texture of mind and thought.

All but 2 of my 17 Sunday papers contained at least one domestic scandal, while one served its readers with four and one described at length how two men had swapped wives, one giving the other seventy-five dollars to boot. Five divorce proceedings were chronicled. One paper interviewed waitresses chiefly upon the advances of the men they served, some of which were racy enough. Another devoted two columns to "Secrets of Husbands" and promised another on the "Secrets of Wives." A dozen women were interviewed as to just how their husbands proposed to them. The daily life of a condemned murderess in her cell was described. One article told of the poisoners of mediæval Italy. There were details of several suicide stories. Another told how great crimes were tracked. Four burglaries were described and seven fires. One told of hunting down a criminal in the woods with a posse and dogs. Several described a horrid lynching in the South. Three had cuts of the scenes of the crimes. A notorious train hold-up was told in 9 of the 17 Sunday journals. One described a group of boys who played burglar and frightened a girl into fits. Another printed a series of interviews on flirtation and yet another collected the views of many women upon the merits of a notorious divorce case. A fight between two women was set forth in an elaborate, humorous way, which left one a little in doubt whether it was really a desperate encounter or nine tenths of it in the reporter's imagination. Most of them described a prize-fight between two stars of the second magnitude, with all the slang of the ring. A boy was kidnaped, three girls abducted. One paper had taken snapshots of several girls and young women on the streets over "Who is this?" with a trifling prize to the original who would call, prove her identity, and claim it; another had snapshots of autos on the same plan. There were prizes, too, for the solution of puzzles, and the nearest guess of the number of beans in a vase. The identification of a disguised woman who daily sallied forth upon the streets at certain hours and was to be saluted in a certain way, was also recorded. One devised a scheme of long-distance races for schoolboys, with prizes. One had "The Confessions of a Firebug," and a well-known actress told girls how to succeed on the stage. One printed Scriptural extracts and several published Sunday-school lessons; about 1,000 journals now do this, paying the author a dollar a week. Many copies of this part find their way into the Sunday school. One gave the life of an author born on the same day of the month a century ago. Several reviewed the scandals concerning a royal personage in Europe. One printed nearly a page of school children's compositions; another their effusions on a topic suggested by the editor, with a reward for the best. One printed abstracts of sermons. There was a goodly chronicle of accidents, although there were no first-class railroad accidents. The sporting pages, however, were well filled. Many of these journals affect science and have articles concerning the wonders of the microscope, of the heavens, bacteria, wireless telegraphy, telepathy, and brain waves, a few of which are tolerably correct and interesting, but most of which are honeycombed with the errors partly due to ignorance and partly to an almost vicious distortion and falsification to cater to popular tastes, or to make science seem ridiculous. The crimes of the popular press against those sciences not of obvious and immediate utility are many and great, and not a few seem to have been committed with a distinct purpose of discrediting them. The woman's departments contained recipes, many patterns, fashion plates, an essay on the hobble skirt, one, a fitted and embroidered outside chemise, with cuts, the latest thing from Paris. One had a page devoted to tinted cuts of twelve stage favorites. The suffragette movement and those who opposed it were both represented. There was an article on "Woman in the Professions"; upon a woman who lived a year as a man, in man's garb and at his work; an article describing life in a Turkish harem. Other captions were The Women of the Smart Set, Women and Bridge, Secrets of Beauty, the Cosmetic Arts, Women Who Have Made and Ruined Men, Social Gossip, Chit Chat, How to Set a Table, How to Live on Twenty-five Cents a Day, How to Build a Bungalow. Some have a column or two of poetry and several a page or two of music. The inserts and infolds are of many ranks, including a Sunday magazine of stories of a pretty exciting type, sheet music, chromos, paper-cutting puzzles and dolls' houses, dresses, children's dramas, etc.

As to the press and the professors, just as we have "nature fakirs" who observe a little that is true, and imagine and report much that is utterly false, about the habits and intelligence of birds, beasts, and nature's ways generally, so specimens of the *genus homo* are often misrepresented in the same wise, with the same end in view, by the news fakirs of the daily press. In what follows I am no more bringing a railing accusation against the press in general than I should be railing against science, if I criticised the "nature fakirs." The great body of pressmen, and certainly most editors, sincerely desire to be honest and tell the truth, and great is the obligation of the world to them for exposing evil and revealing things as they really are. But the new prevalence of "yellow journalism," which has catered so unscrupulously to the lust for excitement, the exceptional and *outré*, has so cut into the circulation of the more solid and truthful papers, that the temptation has sometimes been irresistible to follow their method and capitulate to the spirit of misrepresentation. Possibly, too, the purveying of news has been overdone, and there may be too many dailies and the competition too strong. An acquaintance of mine, a successful editor, lately said, in a burst of confidence, that he had followed the old slogan of the late William M. Evarts: "Get on, get honor, get honest," in the sense of at first going in for rattling, even if perverted, representations of men and things when he began twenty-five years ago. Then when his paper became known and well established, he became conservative and "as truthful as possible."

I will be candid enough to say that one motive in inditing the next few paragraphs is possibly, if psychologically interpreted, a slight, temporary, personal grievance—or rather, several. These are all the more typical because they concern one who is not much before the public, and of whom the great world knows and cares far too little to correct even the grossest errors.

This very morning I received from a paper-clipping bureau, soliciting my patronage, eight excerpts from papers, including one I have always read and revered, which represent me as having remonstrated with a reporter for publishing misrepresentations of academic men and affairs, and as proposing—being actually engaged in organizing—a boycott of college men against newspapers. I am quoted as saying: "College professors must do something to keep themselves from being made ridiculous. The time has come when a college professor cannot open his mouth without being made to look, speak, and act like a fool. I have no doubt that the remarks I am making now will be distorted in the press of the country." The only foundation for all this is that I was once asked by a reporter for my opinion upon newspaper representations of college matters, and emphatically declined to be interviewed on the subject, although I had known the man for years; and when he asked me if I would say a word to him personally, in confidence, and not for the public, I merely said that I thought that Chicago University had suffered worst from this evil. Any suggestion of a boycott or any kind of concerted action never entered my mind, nor have I ever expressed a word upon the subject for publication. The temptation for the reporter to let himself go upon the topic was too strong, although he kept faith with me by saying nothing in the local press but sent his screed, nine tenths of which was a pure fake, to some distant journal for which he catered. Thus I am instructed and roasted in these eight editorials, and doubtless in more. To complain of anything like betrayal or misrepresentation, under such circumstances, I am told, is as bad form as it would be to seek a correction of a caricature of my face, if it were to appear in a comic cartoon. I am told that I should take it all as a good joke. The late Mr. Dana, of the New York *Sun*, once advised a friend, not hardened to distorted publicity, who complained, to deny nothing because then the people would believe that it was true. This seems a little too sophisticated for one who respects and believes in the press in general, and who, as a humble devotee of science, has been taught to seek and to revere the exact truth, as far as human limitations and the law of pragmatism make it attainable.

But let me illustrate further from my own limited experience. The other day I addressed a graduating class of young physicians on hysteria, and quoted a Vienna savant to the effect that whereas in ancient and savage days some had denied that woman had a soul, the doctors now sometimes met patients who seemed to them rather to have two or more souls or personalities—though this is rather a commonplace statement since cases of double personality are reported from time to time even in newspapers. Again came in a bunch of clippings, seventeen this time, which I could keep for ten cents each, and have more sent if I would subscribe. These clippings stated that the drift of my lecture was to prove that womankind had two souls. What did the average reader care whether I or another, both unknown to him, had said it? It was more sensational if treated as the grave promulgation of a new discovery by an American psychologist than as a jest. Thus it was that Dr. Osler's jest about chloroforming men at forty has become among laymen the most characteristic theory of this eminent scientist. As a result of the headlines used in my case, several indignant women have denounced me by letter, saying that one soul was enough for them, or that my theory that they had two implied a charge of duplicity against the sex. One, evidently a learned lady, wrote twenty-one serious pages to convince me that I was wrong and should apologize, which I hereby do, not for myself but for the reporter. But let me keep back nothing. The reporter was not present at the lecture, but came afterwards and asked me what was "the most sensational thing" I had said; and I did reply, a trifle defiantly, that for his purposes probably Professor F.'s suggestion, that the state of some hysterical women might be described as dual-souled, would best suit his purposes. But one must never indulge humorous instincts with these serious boys of the press. I have now learned that; and I think it will be an easier lesson for me than never to talk back.

As the ice is broken, and as I find myself actually writing down with abandon memoranda which I once thought too personal for print, I will go on with a few more confessions. Years ago I lectured in a Western city on "Anger," a topic on which I had worked out a long memoir, now in print, in the course of which I described cases in which boxing had helped fiery-tempered reform-school boys to keep their head, because if they "flew wild," they were apt to let themselves open to stinging counter-blows—that it had sometimes, too, proven useful for rather effeminate, tender, only children. I also praised the exercise, if very carefully safeguarded, as good for the eye and the shoulders, etc. It was only one paragraph, which our strenuous President in the White House, whom I had never met, chanced to see ungarbled and wrote me a three-page letter in his own hand commending my views. Next morning, I was cartooned as a prize fighter in tights, slugging an antagonist in the ring, and the headlines said that I advocated pugilism in the schools; while another journal characterized me as a professor for boxing in the university which I serve. In another popular lecture the next day on "Rhythm," after criticising the modern ballroom in good orthodox fashion, for I felt the ticklishness of the topic, I pointed out what I thought the weakness of the Swedish gymnastics, namely, its lack of music, and praised some of the old Greek and later mediæval folk dances, and those once used in church processionals, as described in Neale's standard work. This at least seems commonplace and trite enough, as these exercises are to-day widely in vogue in colleges, Y. M. C. A. gymnasia, and elsewhere. Next day I was cartooned as a ballet girl in tights and skimpy skirts doing the high kick, which I wish I were really limber and young enough to do. In another paper, I was a dancing master, fiddling for a training class of ballet girls, while the headliner described me as a university president who taught girls dancing. In another Western city where I read the same lecture, which long since appeared in print and excited no comment, it was said that I illustrated my lecture by doing a few choreic stunts, to the great delectation of my audience as I danced up and down the platform. In this last report, a journal, to which I had sent my entire manuscript by their special request, inserted about ten lines of it under the above flagrant headlines, and after a leaded, large-typed paragraph by some editor or reporter, which was an absurd, diametrical contradiction of what I was rightly reported to have said later. Thus, here the cartoonist, the headliner, and the paragrapher were not only false but absurd, while the reporter was right, although his work was in type so fine that it was almost painful to read it.

Perhaps the most annoying imposition I have ever been subjected to is the following: In a book printed six years ago, I had concisely epitomized the current, special scientific studies upon the tender passion in its normal and morbid forms, a topic with a copious and serious literature and of great interest to students of crime, insanity, and genetic psychology. Although my book was much reviewed, both favorably and adversely, no critic, so far as I know, ever even considered my brief treatment of this subject in any way. A few weeks since, however, a reporter came unannounced from New York, sent, he said, to obtain my views about love. I absolutely and peremptorily refused to be interviewed. "Not one word," was my answer, over and over. Twice in the morning he called on me at my house and twice followed me about the institution and grounds. For an instant, my guard of absolute taciturnity was let down a little. I told him he was a victim of some strange error, as I had never said anything or thought upon the subject since my book years ago.

Thus he learned that I had said something upon the subject, sought the book, copied a few colorless sentences, wrote a sensational introduction and still more sensational headlines, adorned his screed with gaudy, colored cuts of lovers in various relations to each other, and filled up perhaps a page and a half with other things by other people, for the most part utterly abhorrent to my taste and my principles. Much of the article was from an actual effusion of a man who had years before been a pupil of mine, but all was put as an "interview" with me. This garbled, half-indecent, or at least suggestive, mixture was widely reproduced in whole or in part as my own voluntary and fresh statements to a reporter. Surely this can hardly be called mere humor; but what redress have I? Denials are not interesting or good copy.

Some months ago a reporter insisted upon an interview concerning Harry Orchard. I met him as I was just leaving my house for Denver, and refused. But the press man was particularly persistent and evidently famished for a morsel of news from me, and I finally said platitudinously: "If Harry Orchard has told the truth, the whole truth, and nothing but the truth, he is one of the greatest criminals in the annals of crime." Only this, nothing more. This he wrote at my dictation and read to me, and printed it correctly in his local paper. But this found its way out West, where Harry Orchard was on trial, and with more enterprise or less conscience the first word of my sentence, "if," was omitted. This made it all utterly inexcusable. I had pronounced judgment on a case I knew little of, which was then on trial. Accordingly, I received a number of ugly letters, one especially from a secretary of a miners' organization in Colorado, who said in substance that the officers of his society had considered my pronunciamento, were trying to have me judicially treated for contempt of court, and intimated that if I were to appear in that region I should find myself "extremely unpopular," which may possibly imply a covert threat. Here I ought to add that within a week after this letter was received, I had to pass two days in Denver, and was unmolested and still survive. I have not yet pondered the question as to who would have been responsible for my death had I been dynamited there. To consider such a question would be to take the innocent and harmless joke of some editorial scissors-wielder seriously. His excerpt was doubtless made a little carelessly and rapidly, or the initial "if" of my sentence accidentally torn off.

Last summer, in a popular lecture on "Confucianism," I urged that there were good points in the teachings of this great Chinese sage that missionaries should consider sympathetically in their world, giving due credit for all that was good and coming to fulfill, not to destroy. Next day I was said to have urged that "Confucianism should supplant Christianity in America and our missionaries to China should be recalled." In fact, I expressly urged that we wanted more and better-trained missionaries there, and enumerated the methods

I deem pedagogic of bringing the Chinese to Christ. In another public, summer-school lecture on the "Nativity" in another course and place, I mentioned the various theories of Jesus' birth, enumerating among others the heresies, since Cerinthus, that Jesus was the natural child of both his parents and that his conception was the result of love without wedlock. I then added, for my lecture was written: "Such theories have never had any scholarly representation and cannot be taken seriously. They have always been utterly repugnant to the Christian consciousness, as they are to my own, and that for the following reasons," which I proceeded to enumerate. For this I was pilloried as teaching that Jesus was a "bastard" and said to have dealt in "stale and putrescent infidelity, swathed in nebulous nonsense." This instance, of course, is not newspaperism pure and simple, but has an unpleasant alloy of *odium theologicum* in it which adds essentially to the unpalatability of the mixture. The writer of this article inveighed against the summer school that employed me, remonstrated that I was not a fit person to be heard, and called upon wealthy men to refuse subscriptions to a university that allowed such a man to stand upon its list of instructors.[1]

But enough of personal instances, and of submitting myself as a *corpus vile* for dissection in a cause I believe to be good. Were I better known to the great public, such misrepresentations would do less harm. But for a typical academic teacher of some twenty-five years' experience, who has had the unbroken confidence and loyalty of his pupils, which is dearer to him than all things else chiefly in mind, to be known outside as an advocate of something dangerously near free love, to have advocated a general boycott of educational institutions upon the press, to be publicly pilloried as holding that women have two souls, as being a dancing master, a pugilist, an advocate of supplanting the religion of Christ, which I teach and believe, by Confucianism, guilty of contempt of court—these things are enough to make poor human nature either indignant or cowardly, according to one's individual temperament, or rather I suppose most men would find a little of both of these instincts at the very bottom of their souls. Instances like the above could be multiplied indefinitely. Two years ago I heard Dr. Aked, at Chautauqua, lecture upon early English customs, in which he ridiculed certain antique fashions, among others the big wigs affected by English judges. Next day the papers featured him as follows: "Rockefeller's pastor scalps the oil magnate, deriding his thatch," and the reader of the article that followed is left with the impression that the writer went out of his way to make merry over the wig of his famous parishioner, which idea, in fact, was doubtless never existent in his mind or in those of his hearers.

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[1] One more personality. More recently a reporter from a Boston paper called on me with clippings from a number of papers in the West where I had lately lectured, some mildly misrepresenting and others utterly falsifying what I had said, and even putting sentiments into my mouth that are abhorrent to me. I told this reporter that I would not be interviewed but would be grateful if he would correct these fabrications, concerning which we chatted for a few moments. What was my surprise a week or two later to receive a fat envelope from a clippings bureau soliciting my patronage, inclosing many articles and editorials from newspapers and based on an "interview" this reporter had spread upon a first page of the Sunday edition! Instead of correcting the misstatements of the Western papers, most of them were restated and many paragraphs purporting to come from my mouth and all in quotation marks were set forth, although my visitor took no notes. For the first time in my life I addressed a letter to this journal asking them to print it in correction, which was never done. In this article, for instance, I am made the author of a volume on "The Psychology of Cupid," although I never wrote a book on the tender passion under any title. I am made to advise teaching "the psychology of love in the public school," something which never entered my head and seems ridiculous. I am made to state that "the physical stamina of girls in the public schools is lower than in former days." I believe and have elsewhere tried to say that it is higher and steadily improving. I am said to have defended if not advocated "flirtation on the part of girls," and this is amplified for paragraphs. I

It is currently reported that Chicago University has suffered exceptionally from a half-sensational, half-hostile press. Professors have been elaborately accused of teaching that kissing causes lockjaw; that Rockefeller is as great a man as Shakespeare; that some day the diseased or worn-out heart of a man can be replaced by the fresh one of a monkey; that Napoleon was essentially a man of peace; that the Borgias were at heart well-intentioned and morally good; that it has been discovered that fog makes an excellent illuminating medium; that lance heads can be made out of putty; that the problem of spontaneous generation has been solved, and also

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never discussed this subject, have no views upon it, and the reporter evidently confused me with another professor in another college who was said to have discussed this theme in a way so absurd that he was obliged to refute the charge. I am made the author of a set of freak definitions of love, all as if it were in an interview. I did collect a number by others in a book published six years ago and held them up to ridicule as preposterous. I am said to advocate the doctrine that girls "are ultrafeminized in the schools." This, too, I never heard of, but supposed the tendencies were rather the other way. "Woman makes man a little tin god." "She is supreme over her husband," etc., phrases and ideas utterly foreign to my thought are put into my mouth—all as exact quotations. In this article as a whole there is almost nothing that remotely resembles anything I ever said or thought. Instead of reprinting my reclamation, this journal a little later printed what purported to be another interview, which never occurred, where I am made to amplify the view that "girls of sixteen are utterly irreligious." Years ago I tried to show in a lengthy statistical article that precisely this age was the most religious age of the most religious sex. Perhaps I ought to laugh it all off as a joke, but I received a number of letters from clergymen, teachers, and others censuring me severely for views as repugnant to me as to them. Why doesn't the reputable press discuss these subjects and formulate a code of professional honor which they at least will observe?

that of determining the sex of offspring; that the plethysmograph is said to have demonstrated the startling discovery that man thinks with his toes, etc. This university has, I believe, officially remonstrated against such misrepresentations. Doubtless there are many professors in the country that have been lured toward love of the limelight of newspaper notoriety, or have been tempted to announce hoped-for discoveries in advance. But there are other professors that have almost a phobia for this kind of publicity. Some reporters are students earning their bread, and their pay and advancement depend upon the number of scoops or the amount of hot matter they can turn in. It is certainly a misfortune to a professor to have such students in daily attendance upon his lectures. It may develop further a new menace to academic freedom, especially in those departments where living and present problems are discussed. I know one professor who had suffered from often being misrepresented thus, and who sought out the offender, requesting him either to desist or to leave his course. The student refused to do either, insisting that he paid his fees, had good marks, and even intimated that the professor had no business to say in the secrecy of the classroom anything he was ashamed to have the public know. In other cases, reporters who are not students have attended large classes, undetected, and exploited or featured everything they could for their purposes. Faculties that have been called on to consider such cases are not, so far as I know, always agreed upon the proper course to be taken. On the other hand, the presence of reporters tends to make some instructors so conscious of the larger public that their work takes on extension features and becomes more exoteric than esoteric, and they come to love popularity to an undesirable degree; while those who dislike it may grow technically recondite or become overconscious and even tame, and thus by eliminating every racy phrase lose pedagogic effectiveness in their manner of presenting things, through overconsciousness of the perverted construction that may be put upon mere tropes or instances. To my mind, it would be nothing less than ominous to many departments if the classroom were to be pervaded by the reporters of a sensational press. One reputable professor I know actually invited reporters, who exploited him in the press, day by day, for some weeks with tolerable correctness, although often with gross, unintended blunders. But for most courses and most subjects, the press does not want this. It would surely be the irony of fate if journalism, once censored, should itself become a censor of academic freedom. Many of the grave evils of intercollegiate athletic games are due to the excessive publicity given to every event and hero by the press; for if games were not reported, or only a bald statement of their results given, most of the evils now so deplored, before which faculties are almost utterly powerless, would cease. But this is a question not of misrepresentation but of excessive publicity itself, which is another matter.

A friend of mine, an eminent professor in a large urban university, years ago settled with his family on a beautiful hill near the Hudson in a somewhat secluded spot. He was reported at great length in the newspapers to be experimenting upon his children, and isolating them from the world, and otherwise studying them in ways as heartless as he would test animals. "Psychic vivisection practised upon his own offspring," was one phrase I remember. He was described as imposing solitary confinement upon his family, depriving his children not only of associates but of education, in order to see what they would develop into spontaneously, thus impounded. In fact, there was nothing whatever, so far as I could learn, to give color or excuse to these ruthless representations. The home and every member of the family seemed happy if not ideal. The psychic vivisection was that done by the press upon husband and wife. They were helpless. They could hardly make affidavit that they chose this spot, preferred the country to the city even in winter, that their children had plenty of good comradeship and the best of teaching, often traveled, etc., nor could they ask nor could their friends make public certification to this effect. The newspaper fakir doubtless relied, for his own protection, upon the self-respect of the professor. Suppose a tortured victim of some such nameless crime takes the great trouble, time, and expense to go to law, and even wins; then the newspaper needs only to publish a correction, months after the offense is committed, in some obscure corner where few will ever see it. Suppose the victim prints a round denial. This, at least in one case I know, was headlined as his "explanation" and "excuse," and his indignant protest was described as "The galled jade winces. He who excuses, accuses himself." At the best, protest may result in a controversy between the newspaper and the man, with every advantage on the side of the former. The latter is often advised to shrug his shoulders, laugh with his detractors, and condone it all as at worst only a natural excrescence of the boasted and magnificent liberty of the American press.

A girl graduate was once sent to me from a journal for news of the institution I serve. It was her first assignment and I had just given out the last scrap of information I possessed to another daily, and this she did not want. After some importunity, when she realized that I could not with the best of good will think of anything she wanted, she broke down sobbing, saying she had been told to bring from us at least half a column, and it would discredit her at the office if she failed in her first assignment. I think that even the worst dailies usually do not feel that they have a right to exact a periodic tale or tax of news from private, and perhaps sometimes from public, educational institutions; but the situation often does become a little tense, if there are many calls and nothing to tell the public. An acquaintance of mine, the head of a large department in another institution, giving a good-natured answer that there was no news, to a more experienced, aggressive, male reporter, was told: "Very well, I must have something, and it will be for your interest to give it rather than to make it up myself."

Now I ask, ought not the humblest citizen to have, along with the right of life, liberty, and the pursuit of happiness, also the right to the presupposition that he has common sense as well as sanity, until he has actually proven himself to lack it? Furthermore, has not an institution for the higher education, public or especially private, as well as many other kinds of institutions with integrity and devotion to the public weal of which no one has any question, a right to keep such of their affairs as it would injure or even burden them to serve up for the public to themselves, especially when the public would derive no benefit from this knowledge? Is there no limit to be set to espionage and cross-examination when refuge is taken behind such reserves? I have no formulation to make. Fortunately, the relations between the press and the university I represent are almost ideal. Nearly all local newspaper reporters are and have been gentlemen, and the editors desire to help and not to embarrass. Sometimes really good news has been held up by them upon our request. It would be even easier to write a companion article to this, setting forth the spirit of mutual help as often illustrated in the relations between a high-toned press and an institution. Things are often printed at our request and to our advantage which it is not especially the interest of the newspapers to set forth, and sometimes which we, perhaps, ought to pay for at advertising rates. Doubtless we are more helped by what is done for us than we are able to help in giving out news. The trouble is with journals conducted on a lower editorial code and in other cities.

Perhaps my protest ought to have come from the many substantial and solid newspapers which are striving to adhere to high ideals and plain, honest methods, but are being left behind in circulation by their more lurid competitors. Their fidelity to the honorable conduct of their high function is sometimes just now among the most heroic things in our present national life, and good citizens should rally to their support. I yield to no one, also, in admiration of the energy, enterprise, and persistency of many young men of the press, who have often excelled detectives at their own vocation and dragged to light hidden abuses in high places, and shown courage, heroism, and even virtue of the very highest quality. Nor do I forget how many leaders in this country have been trained in this marvelous school. Perhaps no vocation for young men in the early twenties is a greater quickener of the wits or gives a more practical, all-sided knowledge of men and affairs.

Although I could name a few reputable professors, as could probably all academic teachers of my age, who have been broken down in health or been driven from their positions by newspaper misrepresentations, I have no legislation or any other action to propose in restraint of this license of the press. Still less did I ever dream of any kind of boycott toward it, such as I am just now widely credited with. I presume that we must also endure, with such equanimity as we can, the most atrocious blunders in reporting by crude reporters, if we chance to speak in public; when we often find reproductions of what we say, on which, were the reporter a student, we could hardly give him a mark of five on a scale of one hundred for his work. Fortunately, the practice is spreading of inviting lecturers to furnish copy of their own; and this, laborious as it may be, some prefer to this unintentional misrepresentation. How often we are earnestly importuned to send in a complete copy of a long address in advance, or to give our entire manuscript to a reporter whose paper can use but a few words of it, though we may have been at much inconvenience to supply copy. It is not practicable to confide any but purely official news to the journals of the publicity bureaus, now being organized in some of our collegiate institutions to secure for them the right kind of publicity and to mitigate these evils. I cannot agree with Mr. Stead's sweeping denunciations of American newspapers in general as home and international mischief-makers. Much of our trouble is probably due to the over-multiplication of newspapers. We are the greatest newspaper-reading nation in the world, and nowhere else does the press so express and shape public opinion as here. If it must make known "all the news that's fit to print," let it also be "as honest as possible," even if in midsummer the news is scarce.

Perhaps schools of journalism in universities may help at least by providing more competent reporters, who are now often wretchedly underpaid and overlooked, so that the profession is not as attractive as it should be to the best and most educated youth. If our great millionaire givers would endow one or more journals with a charter that would impel them to be just and true, still more benefit might come. We no longer, like the Chinese, worship everything printed, but the country at large has not yet realized that there is about as much difference between newspapers as there is between men, and that a man and a gentleman ought to be known and judged as much by the journals he takes and reads as by the company he keeps. Perhaps some day, press men, like physicians, will formulate an ethical code of their own, with a view to maintaining the highest possible standard of professional honor.

Is it possible and is the present a rare opportunity, as we are often told, for endowing a school or college of journalism? There would certainly be dangers and difficulties at every step of the curriculization of this great group of activities. The funds should be generous, absolutely free, and with no condition or limitation, trusteed by men of ability, integrity, and public spirit, with a rather large faculty and grades of work all the way from the training of newsboys to managers and editors. The history of the press in all its departments from the invention of printing, the story of journalism of all kinds, including something for each special line, the survey of present newspaper industry all the way from the manufacture of paper and its transportation, the power press, linotype machines, and all other labor-saving devices, typewriting, news-gathering, writing up, head-lining, the psychology of advertising, now in an early and promising stage of its development, the process of interviewing, with a definite policy concerning the infliction of the third degree upon innocent and unsuspecting citizens, the reporting of meetings of all kinds, new syndicates, their history, and that of the associated press, the use of telegraphy and the telephone, a comparative study of the state and methods of journalism in different countries, the technique and the apparatus available for reporting stocks, finance, legislation, manufacture, education, general literature, art, and all great culture movements—all of these and many more would have to be included somewhere in a course of training that would be at all adequate to the needs or commensurate with the proportions of this business. It would be a school of omniscience with some qualifications. There should be a generous reading room, with carefully selected and widely varied collections of journals as specimens.

Such an endowed school should certainly publish its own journal, which ought to be so edited as to illustrate all the best teachings of the school. It should be independent of the market and be able to give at least approximate concrete illustrations of its ideals. The type, e. g., should conform to the best established laws of the hygiene of the eye, involving some modifications of the present size and form of letters, the length of line spacing, etc. The ink should be at least not malodorous or easily rubbed off, or dirty. The paper should be of a hue and texture to give most effectively the optical laws of economic contrast, the proof-reading should be thorough and on a model system, following the best norms for punctuation, capitalization, and italicization, with reasons for each rule laid down, and a consistent and rational policy should be followed with regard to the spelling reform. The style should be a model of lucidity, but with very diverse standards, from effective slang up to the highest attainable purity of idiom, differing much thus in different departments. Partisanship, religious bias, promoting, appeals to passion, prejudice, trivial gossip, scandal, sensationalism, of course, should be absolutely tabooed, save in the correspondence columns, which should constitute a kind of forum, rostrum, or referendum for signed letters from readers, where to all intelligent and sincere expressions of opinion wide license should be given. Intelligence should be as accurate as every law of historical criticism that is applicable to current events can make it. Editorials should be candid expressions of honest, individual conviction. The ideal should be to inform and help every class of the community and to exclude private, class, or selfish interests, no matter under what mask or disguise. There should, of course, be complete separation of the business advertising from the editorial department, such evils as snapshotting and reading advertisements should be stopped. Cases of the Thaw order and every kind of scandal-mongering should be, if not entirely eliminated, at least reduced to their very smallest dimensions. The arbitrary and summary discharge of employees should be restricted to definite and prescribed cause. Errors that by finding their way into print work mischief and injustice should be promptly and frankly corrected; the lust for the weird and wonderful should be tempered. The village gossip was almost a synonym for mischief-maker, and the ideal newspaper should not be a gossip waxed big and fat. Vice should be concealed on the principle of the old quatrain of Pope, which makes it hideous at first, but seen too often, it becomes familiar and is finally embraced. Every form of forging and garbling should be penalized.

One practical next step is for teachers and editors to get together and each propose modes of mutual help. Teachers could exercise a direct censorship, listing the papers of a city that are the most unobjectionable for children and youth in the subject-matter, style, and pedagogical value of the departments addressed to the young, and in advertisements. This would be appreciated now that so many dailies and weeklies are devoting columns or even pages to attract youth. Besides this, there are many ways in which the press could help the school positively by keeping tab on topics, occasionally publishing reference lists with a high-school section, and a reporter who would do more than report social and personal gossip, exhibitions, and athleticism, to which the stranger on our shores, who knew our educational system only through the daily press, would think it was chiefly devoted. Short notices might be given of the literary societies or clubs and circles of a school, its scientific excursions, and brief notes from time to time as to the general status of each school which parents and taxpayers ought to want to know something of. Occasionally teachers and press might address the parents, and even their own pupils, effectively through the medium of the press. On the other hand, editors have not sufficiently explored their own interests in the educational field, or realized, perhaps, what a special department with an intelligent reporter in this field might do. Teachers sometimes make use of the press in their classes, or encourage clipping files and scrapbooks upon debates or certain school topics, and might suggest modifications of editorial policy that would make this work more effective. Every newspaper ought to be to some extent an educational journal for the young, and indeed is coming to be so, though usually in a wild and weird way. Popular science and invention fit the high-school stage of interest in physics as current news may be often used to vitalize history. A few of the most important monthly or weekly accessions to the public library, exceptionally good achievements or rapid advancements in the schools may be noted—along such lines not yet clearly seen or anywhere firmly drawn. Progress will be surely made in the near future. Prize compositions and letters upon themes, prescribed by teachers as well as editors, might be occasionally printed. Where students act as reporters, more attention might be given and better direction of their work undertaken. Patent insults should not crowd out the ambitious youth who desires to enter the literary field by the newspaper way of approach, and to young reporters far more attention should be given of an educative sort, as employers in other industries are beginning to find it pays to train their apprentices.

The press ought to be publicly discussed much more than it is at present by the press itself, which seems to shrink from self-knowledge. It is the keeper of public opinion, but has no keeper for itself. Again, the great function of praise should be utilized as effectively as blame has been.[1] Commendation has as many forms and terms and is as great a stimulus as vituperation. It really flies on eagle wings, as Juvenal says scandals do. The press often seems to have a grudge against governments, as if to pay off an old and long-accumulating debt for restricting their liberties. Criticism should be exercised with the very greatest care and discrimination. On the other hand, the press and the government often combine. One reason why newspapers are already a kind of monopoly is that under present conditions it is becoming every day far harder to establish a new newspaper. Government papers often suppress news for days in furtherance of national policies. They also sometimes carry the day against carefully formed plans of state, e. g., the reconstruction policy of England in the South African War. Young men enter the newspaper business often as they enter trade, to acquire a livelihood, but a far larger proportion of them enter it because they have literary tastes or ambitions or desire to shape public opinion. The press ought to be a great school for training men of letters. Its spirit of work and its general effectiveness make it inspiring, but its educational value is doubtless diminishing. The press ought to represent in a word " the daily play of the higher mind upon the lower."

A nation's press is its self-consciousness. Both awaken together. The New Turkey has now over 500 papers, expressing and reflecting all the views of all sections of the people. The press mirrors the hopes, fears, joys, sorrows, daily life, experience, thought, sentiment, aspiration, depression, of the people. It makes races self-conscious. It flatters and condemns, allures, tempts, and reproves. It is the voice of the people, but shows that this is not the voice of God only, but of the devil also. For most men and women, during most of their active lives, it is now the chief educational influence. It is not only the medium of knowledge, both of self and of the world, but the most potent of all cultural agencies. It is the *journal intime,* the folk soul expressing the more general *Zeitgeist.* Every religion, sect, political party, every business, industry, trade, science, art, almost every group, institution, vocation, has its own special serial publication. For better or worse, the world to-day reads. It is a newspaper age. Papers are read far more than books, and far more are printed. They contain far more good and far more evil, more truth and more lies. To characterize them is to characterize the age and land. To improve them is to improve civilized man. To make them ideal would hasten the advent of the kingdom of the superman.

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[1] The Newspaper Press, by S. W. McCall. Harvard Graduates' Magazine, Sept., 1904. Vol. 13, p. 22.

CHAPTER XVIII

THE PEDAGOGY OF ELEMENTARY MATHEMATICS

Unique position of mathematical pedagogy—Diversity of theories and lack of unity in teaching—Origin of the number concept—Counting fundamental—Steps by which children learn to count—Number forms—Personification of number by imaginative children—Genetic development of number as observed in child study—Hobbes' view of mathematics—Necessity of confining drill to small numbers—The four species should be taught simultaneously—Advantage of mental drill—Use of grouped dots in different methods of teaching arithmetic—Some results of experimental pedagogy and contributions of the psychological laboratory—Need in this field—Opinions of specialists in mathematics—High-school mathematics—International Commission to investigate teaching of mathematics—German reform movements—Magic squares—Conclusions.

MATHEMATICS, beginning with elementary number work, is unlike all other topics, and needs a unique pedagogy of its own. Its method is the ideal type of *à priori*, deductive, logical thought. It is systematic, rests on immediate intuition, axioms, and definitions. It is exact and admits of no approximations. Its processes and conclusions are right or wrong, with no middle term. It is certain and leaves nothing essential open to argument. It may have countless aids, illustrations, applications, texts; but, on the other hand, it can dispense with all of these and go on its way with chalk and blackboard only. Changes of pedagogical fashion—and these have been many—affect nothing vital in it, and no part of the curriculum has been so little altered in subject matter and method from antiquity to our own day. Hence, the history of the modes by which it has been taught, interesting and suggestive as they are, are less essential for the teacher. It is systematic, coherent, logical, necessary, is a language that applies the world over to about all classes of material phenomena. For these reasons it is fitly taught authoritatively, magisterially, with a kind of masculine military rigor, and has within it very high culture possibilities as a moral discipline or *Dressur*, implants a sense of law and an instinct to conform to it. Nothing else so conforms to the Socratic conception of obstetric delivery from the depths of the inner consciousness, and so perhaps few departments of study are so well calculated to give man respect for his innate powers. Even the inveterate tendency throughout the history of culture to apply its terms, methods, and devices prematurely to domains not suitable to it bears witness to the inspiration of its ideals. The history of its higher development and its achievements and the story of the great original minds adown the ages is one of the most splendid chapters in the development of human knowledge, and it is not hard to understand why Pythagoras thought number the essence of things, and is said to have sacrificed a hecatomb when he discovered the theorem that bears his name, or why to Newton mathematical thinking seemed more nearly than any other kind of reasoning to be thinking God's thoughts after Him, for He created the world according to number, measure, and weight, so that every topic becomes scientific somewhat in proportion as it becomes mathematical.

A modern writer, who has evidently strong opinions on the subject of teaching mathematics, expresses himself in the following emphatic terms: "If there be a pedagogical devil and hell, a Dunciad kingdom of darkness and stupidity ever insidiously warring upon the spirit of sweetness, light, and truth which is the holy spirit of teaching, they were never more strongly entrenched than in elementary mathematics. Here about every pedagogical disease ever known has flourished. This has been the sickest of all sick topics, immune to no epidemic or contagion and more diversely doctored and prescribed for by every kind of therapy." No topic has been so hated and perhaps none more loved by both children and teachers, as our returns abundantly show. About the very concept of number the old warfare of nominalists and realists still rages, some regarding numbers as an independent entity *per se*, some as inherent and innate in the soul or in nature, some as qualities of things somewhat like color or weight, some as identical with things and at the same time a kind of standard apart from them. To others it is a mere symbol, location, or sign. It is thought to be learned and taught inductively from experience, and deductively, rationally, with insight and understanding, with proof at every step, or bolted mechanically by an active memory, although as yet no one can tell us whether number was got out of things or put into them. Once arithmetic was almost tabooed from early education or reduced to the merest elements, and anon it has waxed fat and taken more hours per week than any other topic. Now, primary, secondary, and academic work have gone their own ways, each for itself, with little correlation, while again authorities have combined to prescribe and control everything, from counting up. Some experts have sought both warnings and examples from the history of teaching in this subject, while others advocate wholesale obliteration of the past and all tradition, making a new start upon an experimental basis, like Lay, who reviews methods down to our day and finds them all a "*Wirrwar*" of chaos, and would start with a new slate, placing everything on psychological laboratory experimentation which has happily established a very few things, although these have not been as yet very effectively correlated and put to work. Now the most speculative metaphysical philosophy has invaded this domain, and so has the crassest empiricism. Thus the field has long been swept by every wind of doctrine and the pure culturists and the pure utilitarians have each had their innings in turn, and nativists, intellectual intuitionists, and inductive sensualists have competed for mastery. Number has been thought to be "the evolution of collections," "the science of pure time" and made a sequence of, while others regard it as only a grouping in space. Some arithmetics cast rules into rhyme to facilitate their memorization; others made a point of displaying, e. g., a dozen numbers to be added symmetrically in the form of an urn, to commend them æsthetically. Herbart stressed especially the ethical value and meaning of arithmetic. So again, sometimes a ciphering algorism has been made the chief factor. Now head work predominates. Some would go back to Pestalozzi's counting and some to Newton's measuring as basal.[1]

As early as 1887, F. A. Walker[2] found a false traditional arithmetic entrenched in the schools, occupying four to five hours a week in the grades, and requiring for home study some things which were half anecdote and half conundrum, and which barely fifty per cent of the children, according to his comprehensive consensus, could resolve, and some of which he found it difficult to do himself. He denounced these methods as "barbarous" and compared the fallacy that prefers large numbers to small with that which once thought all athleticism was best developed by big instead of, as now known, by small dumbbells, etc. He would halve the time given to this subject and reduce the attainments in the grades, and he opposed "prying up" the mathematical faculty prematurely into consciousness. Its disciplinary value he thought, with Sir William Hamilton, to be *nil*.

In early colonial days no arithmetic was taught in the few elementary schools then existing, but the curriculum centered upon reading and writing, with often religious precepts. This seems rather remarkable, since arithmetic had a place in the trivium and quadrivium and, as its history shows, was well on in its development. It seems to us still more remarkable that its practical needs were not felt. It was, however, occasionally taught in evening schools or classes by the few pedagogues who knew it. It was of the most elementary kind, however, consisting of counting and a little about the four "species." The teacher who understood fractions, and especially the "rule of three," was a *rara avis*. Moreover, before the Revolution, paper was very scarce and there were no blackboards, so that when ciphering came in, old letters and the margins of books were used. For a long time arithmetic was not taught at all to girls, but sewing took its place. It seems to have been supposed that when the girls were married their husbands would do all the figuring necessary. Even when dames began to teach school, very few of them undertook to teach arithmetic. The old horn-book contained a very few of the most rudimentary elements of number, with perhaps an almanac. D. E. Phillips,[1] who gathered and examined 166 text-books in elementary and secondary mathematics, found that the earliest, in 1618, "read like a Bible." Cocker, too, stressed the sacredness of mathematics, which he understood "by the secret influence of Divine Providence." Before the rather epoch-making days of Cheever and Hodder the pupils simply "did sums," of which the answers were known, solving them if they could themselves and otherwise obtaining the master's help. Thus, arithmetic in this country was at first very elementary, and what was learned of it came very late.[2]

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[1] See Rudolf Knilling: Der natur-gemässe Methode des Rechen Unterrichts in der deutschen Volksschule. Münich, Oldenbourg. 226 p. Also, D. E. Smith: The Teaching of Elementary Mathematics. N. Y., The Macmillan Co., 1901. 312 p. J. W. A. Young: The Teaching of Mathematics in the Elementary and the Secondary School, N. Y., Longmans, Green & Co., 1907. 351 p.

[2] Discussions in Education. Edited by J. P. Munroe. N. Y., H. Holt & Co., 1898. 324 p.

A glance at a few typical current systems of teaching elementary arithmetic will best open the problems of its pedagogy. In this survey we will take our start from the Boehme, German series, the first pamphlet of which costs about five cents and contains several thousand "sums." It adheres strictly to pure number relations and leaves everything else to the teacher, who must incessantly drill, supply rules, evolve methods, vitalize according to his discretion by drawing upon anything helpful from all the wide and diversified field of things which can be counted, measured, or weighed. It is insisted that the pupil needs no text-book, but only this repertorium, which is the condensed, quintessential heart of the matter. All advance is made orally and in class, and writing comes later and is supplemental. Arithmetic is rhythmic, and this must be carried well along before geometrical relations come, while the rudiments of algebra belong later yet. The children are drilled in rapid work. Processes are mechanized and as far as possible made automatic, till later the children come to feel the magical charm and marvel of these pure number relations, as it first dawned upon the mind of man, where it probably came out best among the ancient Pythagoreans, who apotheosized and almost worshiped numbers for themselves.

Colburn's arithmetic (1821) inaugurated in the United States a great change from abstract deductive methods that began with rules, in being at first inductive, with a story introduction, but soon passed to pure numbers with very many examples for mental work, which was continued for some time before pencil or chalk were used. The author was a mathematical genius who performed remarkable feats in his own mind and felt the mystery of the number function. His text was very widely used and has played a great rôle in the educational history of this country, and it has been later revised, with various new and concrete illustrative cases added. But more possibly than any other American book, as it was originally used, it stresses purely numerical functions.

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[1] Number and its Application Psychologically Considered. Ped. Sem., Vol. 5, No. 2, pp. 221-282.

[2] The Teaching and History of Mathematics in the U. S., by Florian Cajori, Washington, Gov. Printing Office, 1890. 400 p. (U. S. Bur. of Ed. Circular of Information, No. 3).

Perhaps at the very opposite extreme stands Jackman's "Number Work in Nature Study," which proclaimed an open revolt against all current methods of elementary arithmetic by introducing the student to facts chosen, so far as possible at first hand, from eight elementary physical sciences, in every one of which inhered a problem involving arithmetical operations. Attention, however, was called to the result only, and the process was ignored and the students were left for the most part unconscious that they were studying arithmetic, so much greater was their interest in nature. All objects involve extensions, capacity, or weight, and more or less comparison. The author utterly abjured pure number work and thought all abstract mathematical relations should come later, after interest had been fed fat on things, and that this was the way of the child and of the race. The children were incessantly counting and measuring, but all this was incidental to nature study. No more confounding heterodoxy in this field was ever promulgated and all text-book makers stood aghast at this brilliant and original innovation, which overthrew all their Penates. Indeed, this system never had any very serious and competent evaluation, but my own slight observation of it at work under the author's hand left me with an earnest desire to see more of it, and with a feeling that it had great possibilities, nipped though they were almost in the bud by the author's premature death.

Speer's well-known text makes judgment of relations basal. Things are what they are by virtue of their relativity. This idea is the foundation of various philosophical theories from Hamilton to Hegel. The equality of magnitudes is the starting point, and the mind oscillates through ever wider arcs from wholes to parts and back again. By incessant and extraordinary activity of sense, mind, and hand, the child should slowly grow up to the idea of eight and the rest. So there is incessant comparison, judgment; the child aligns blocks, builds, pours, tests, metrically and quantitatively, and proportion is everything. Spontaneity, self-activity, analysis, synthesis, clearness, processes from the concrete to the abstract are stressed. Nearly everything starts from the kindergarten cube, sphere, and cylinder, for these awaken a sense of ratio and all mathematical ideas. In a supplementary text the author shows how lessons in form should not only accompany but prepare the way for the study of number.

The McLellan arithmetic is frankly based on Dewey's "Psychology of Number" and assumes that "definition of values is the form of measurement." Quickness and accuracy in the figure work of the four rules of species is not enough. The extreme ratio idea, which ignores the "how many," and the extreme number idea, which ignores ratio, must, of course, be avoided, but arithmetic deals chiefly with quantity, and ratio is central not only in fractions and percentage, where all admit it, but throughout; hence everything at hand is subjected to the foot rule or tape measure. The test of all is measurement. Hence, counting is hurried over, after drill in the instant recognition of number pictures. The measuring factor is given almost exclusive dominance on the principle "no number without measurements and no measurements without number." Number subjects the world to man, and by this new method it is stimulating and easy to teach. This book and that of Speer created one of the most interesting and fruitful diversions in this field. Some of its representatives made careful studies of the nature and history of the subject which for a decade enriched discussion, and although the wholesome reaction has shown its extravagances, it has brought a real contribution of merit. Since then nearly all our American arithmetics have given it recognition, if less and less. Murray's "Modern Woodward Introductory Book" follows in the main the McLellan idea of measurement with certain modifications, and so does Gray's "Number Development."

It is curious to note that in recent years authors and editors have been much perturbed, first, to steer between extremes or to give certain recognition to all views, however disparate they may be, and also to prepare text-books that can be placed in the hands of pupils themselves, a few as early as the first, but most by the beginning of the second grade, which, it must in judicial candor be borne in mind, involves the element of financial interest to both author and publisher.

"The Pupils' Arithmetic" "meets current criticism of methods and results," retaining the mathematical skill of the old, but attaching to this all that is good in modern theories. It combines pure and applied problems, involves better grading, works with small numbers, alternates judiciously from concrete to abstract, introduces all the best new methods used in business houses, uses but does not abuse the idea of rate. Only the spiral system is distinctly tabooed, so that the first page starts with addition and the other three rules follow. Oral and written work alternate and there are a number of new types of cuts, dolls' soap, erasers, stairs and ladders, rows of books, penholders, calendars.

The Smith arithmetic takes the golden mean between the extremes of the obsolete topical and the scrappy spiral ideals, recognizes the ratio idea, is good in fractions but avoids its "unnatural extremes," appeals strongly to native interest, which we are told has been too much discouraged; steers safely and happily between too many and too few illustrations, and is so tentative that it can be modified to suit any local conditions. This, of course, must appeal strongly to the man on the street who may be on the text-book committee, and ought to make easy the work of the agent who works to introduce the book. It is enlivened by many pictures from daily life, children with happy faces are doing things with blocks, candy, and there are games, rabbits, oranges, bundles of sticks, chickens, thermometers, coins, ice blocks, Christmas tree, coasting, bonbon boxes, cordwood, a picnic—all as if to sugarcoat a bitter pill. Like so many text-books for the lower grade, the teacher is left almost nothing whatever to do save to follow directions. About every question even that she needs to ask is printed, as if to reduce her to a pedagogic state of servitude or automatism. She is told what to do and how to do it to the minutest detail. Hardly a loophole is left where her own initiative or originality could break out if she had these qualities, which she is, of course, supposed to lack and to be a text-book grinder.

The Preston-Stevens work makes the startling statement that the first and second year require no text-book, for children cannot read well, and so it only aims to give the minimum that is sufficient for the ordinary needs of life and to satisfy the compulsory educational laws. All is in easy words, with the least possible demand for explanation of processes, with a few story sums, oral drill, with new way for teaching subtraction and a simplification of the multiplication table. After the four "species," recourse is had to mensuration motives. Pictures are few and the teacher is allowed unusual latitude.

In the Heath arithmetic everything has been tested beforehand and there is nothing whatever experimental in the book. It combines three things, viz., logical system, exact directions to teachers, and conforms to the demands of business life (the first and last being in their very nature unharmonizable). Topical and spiral ideals are also harmonized. All, we are told, is simple, logical, practical, with much drill, yet much principle. The child must understand processes, and yet chief emphasis must be laid upon results. The first pictures are beautifully colored, and colored discs are used again to illustrate and sweeten the bitterness of fractions. The first work is chiefly mental arithmetic, and after that, in a separate compartment of the book, come mensuration and the four fundamental rules, with written work. The eight-graded city arithmetic presents all needed for each grade by the latest method, and no more, and adapts everything to the powers, needs, and interests of the children so as to save time. Objective methods are stressed and the first year's work is limited to the number twenty. The type is excellent, and there are anecdotes, examples, cuts of many kinds—stars, fans, tops, goats, pigs, knives, hands, fish, etc. Like others, this is a book that each first or second grade child must have and is one which each teacher must follow, although probably she might, if she were original, add pigeons, pebbles, sheep, etc.

The Young and Jackson arithmetics are a distinct type in that they recognize both counting and measurement as a basis of the number concept. There is great variety in the forms of measurement used. The units of linear, square, solid, liquid, time, money measures, and many others, are used constructively to teach number relations. In addition to this concrete basis the pupils' ideas are enforced by much counting. Exercises in counting by twos, threes, fours, and so on are frequent. The recognition of number as a series is well co-ordinated with imagery of measurement.

The Myers arithmetics lay special stress upon measurement as a means of teaching number relations. Judgments based upon visual precepts, the core of the Speer method, are disregarded. The comparison of rectangles measured by unit squares is the chief material for concepts in the primary grade work. In the grammar grades more attention is given to geometric forms that appear in the arts than to number relations that appear in the arithmetical problems of our common industries.

The Thorndike series of exercises, a paper-bound volume for each grade, modestly makes no unique claim, save that its form corresponds to the requirements of the hygiene of the eye and of the neuro-muscular apparatus.

Chancellor's "Children's Arithmetic by Grades," in seven volumes, advocates number study from books as soon as the child knows ten or as soon as he can read. The author would steer between the magnitude and multitude idea, the topical and spiral, would grade more accurately according to nascent periods in the growth of the child's mind (which, although there is no evidence that he has studied the literature upon this subject, shows he is concentric), anchors to the old, but limbers out into the new. Education is largely understanding books; there is danger in prolonging oral work, and there must be studious solitary work on the part of the pupil. The teacher must "see that the children study this book," although he may do some things before their "knowing this book from cover to cover." There are things for the children to do. Two is taught along with halves, three with thirds, etc. Geometrical rudiments and simple terms are used almost from the start. To each number from ten to twenty a special chapter or lesson is given, and other number limits are taken and exhausted before larger numbers come, so that the spiral method is prominent. Ratio and the Grube method are embodied, and dates, dollars (natural size), music, chronometry, angles, are all touched upon during the first year. No text is perhaps quite so eclectic and modern. In the later series there is counting, with skipping by the aid of number tables, which seems admirable, and there are even hints at magic squares and number puzzles. The concentric mode dominates. There are stories, imaginary trips, business, marketing, etc. With the fifth grade on, drill work is intensified, and from the sixth on practical motives predominate. The elements of geometry and algebra are used suggestively, so that, on the whole, we have here a very interesting synthetic effort which is perhaps a better embodiment of present American tendencies in this field than any other known to the writer.

Most psychologists would, I think, agree with Phillips that the background of our number concept is the series idea. Since Vierordt, in 1868, there has been a long series of laboratory experiments upon the rhythm sense with a view to determining many things, e. g., the intervals more easily grouped by accents into larger wholes, the indifference point beyond and below which reproduction is less accurate, the differences between larger and shorter series, the least perceivable intervals, the way in which tallies or series of innervations conforming to a series of outward impressions is kept, the way in which a system of accents and higher compound units arise. It has been found that an interval of about three quarters of a second has for adults certain advantages, but there is much individual variation. As Nichols[1] has shown, number cannot be separated from time or space. The principles of simultaneous and successive combination of separate points show that the mind is impelled to group, one says, irresistibly. Eye-spans or eye-fuls and ear-spans or ear-fuls are usually not more than three or four. These are judged immediately, but if grouped symmetrically the number immediately perceived can be greatly increased. While this sense span perhaps does not increase much with age, the memory span certainly does, and very likely there is a real relation between these spans and intelligence. Thus, consciousness is not only continuum, but is marked by a series of changes, and these very strongly tend to group themselves in threes, twos, etc., modified perhaps by breathing, leg-time in walking, possibly heart beats, etc. To a series of sense impressions we irresistibly tend to react by tapping, nodding, beating time, rocking, etc. Thus, before there is any conscious idea of number, children are developing the series skeleton or *Anlage*. They love repetition, even though it be monotonous, and that whether it be sensory or motor.

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[1] Our Notions of Number and Space. Ginn, Boston, 1894. 201 p.

The next step usually is to apply some kind of designation to successive ictuses or to get some number name or oral symbol. Many savages who have not developed this for more than one or perhaps two, and then jumped off to infinity by the word many, have the series form quite well unfolded and perhaps more or less abstracted; that is, they have learned to keep tab on fingers, by pebbles, by notches, etc., with a row of outer things or occurrences, and some number prodigies can perform marvels at this stage alone. Succession, of course, is at the basis of consciousness, but everywhere thought evolves it and leans on symbols. Probably most children pass through a stage of counting with almost no reference to the things counted, commonly running the series ahead of the objects. They care for only the rhythmical order of the number name. One is sometimes designated zero. They count as far as they can and begin over. Very often the numbers they use are in the wrong order, 1, 2, 5, 4, etc. They often think the number designates the number itself, so that its name is 3 wherever it is. Often the children learn the counting names as a kind of gymnastics, with no true idea of number. It requires much practice, which is psychologically very akin to marching to music, to count correctly. It is the matching up of two series. Having learned to do it, counting may often become a passion. Children must count everything, even words in a dictionary, the stars, set themselves a stint of counting a million, and we know that there are many kinds of arithmomania which consist only in this propensity carried to extremes. The passion for stepping on or avoiding cracks, or on every tile or every tenth brick, is a manifestation of the series instinct, with which the very sentence sense is more or less congruent in ways we do not yet know. Most children, then, first count independently of objects, and often with much rhythm and variation, perhaps indefinitely modified voice and gesture accompaniments. Thus we have first the series, then its name, and third its applications, although our pedagogy tends to reverse this order owing to false ideas of how the number concept originates.

This series *Schablone* differs in value and the terms that compose it, unlike those of the musical scale, make very different appeals. Odd numbers are generally disliked and sometimes skipped in counting. They seem to some uncanny or empty. Some children have a nervous aversion to all odd numbers, and yet marked-down prices in the shops seem to find them very effective, some thinking that an article at 47 cents sells better than at 45. Everyone has read of Marjorie Fleming's[1] saying, "I am now going to tell you the most horrible and wretched plague. The most devilish thing is eight times eight and seven times seven. It is what human nature cannot endure." Four, Phillips finds a very favorite number, playing the leading rôle in Hindu arithmetic, everything being built upon it. Although most number systems turn upon ten, there are those founded on six, seven, eight, and nine. As to the number name, it is in many languages taken from something which makes the number prominent, like sun for one, wings for two, etc.

Thus, counting is fundamental and gives an immense momentum to arithmogenesis. The modern child usually learns the names before he knows how to apply them. Moreover, it is very interesting that individualization and dramatization of numbers may be suggested not only (1) by their functions, but (2) by their name functions and (3) by their symbols. A very definite personal feeling toward various numbers is thus common, and this with some imaginative children plays an important rôle. One child, e. g., thinks 4 a fat duck, 7 a tall man, 5 a pigtail, 9 a lazy man, 7 is usually bad, 11 may be happy-go-lucky, 13 is mean like 3, 25 is square, round-faced, etc. Many of these personifications are doubtless derived in part from all three of the above sources. Most children, too, have great aversion to the Roman numerals not only because of their clumsiness as compared with the Arabic, but often imagining them as stiff, vain, foreign, meddlesome, or bold. More functional, however, in origin are such ideas as that 7 is always trying to break into 14, but is crowded out by 2. It then makes a try at 28 and 35, and finally does get into 49. Four is a square, solid individual, and its figure may be made to waltz time. Besides this we have also number forms,[1] where various figures are imagined to be arranged in zigzags or long curves or lines going in very definite directions, turns marking the more important numbers. A few children associate different colors with different numbers, and a very few give them different phonic characters. No doubt all these phenomena, that seem perversities to the teacher, are legitimate results of the long stress and strain by which the number series, name, and its application in counting, became fixed and established in the mind. Some of them illustrate the instinct to grasp some or any adventitious aids in this domain. The key to them all can very probably be found, if we ever reach it, in that stage of life when the series psychosis was being established. Thus, number and some kind of geometrical form are almost irresistibly linked together in the very nature of the mind. If this is correct, then this process and its application in numeration is more fundamental than measuring or comparing. In fact it needs but little experiment to show how all the rules of arithmetic, ratio included, are involved in the working of the number series, which can be used forward and backward, that is, additively or subtractively, skipping or counting in groups, which is multiplication; factoring, which is division, and which opens up to roots, powers, and fractions, and these are all not so much implicit as pretty well developed in it. If this contention is right, arithmetic does not begin in reason, but is very largely automatic and habitual at first. The genesis of number is independent of quantity. The series cannot remain abstract, but is inevitably and incessantly applied. Why, then, do children before they count distinguish even groups of units as more or less? It is because they judge them by form and size rather than by number. There is nothing mathematical in mere bigness and littleness.

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[1] John Brown. Marjorie Fleming. Douglas, Edinburgh, 1884.

Number forms thus seem to be a direct product of the counting instinct and its motor ictuses laid off in the visual field, where there are angles or new terms at important numbers and odd and even are made emphatic, and the tens play an important rôle. Larger numbers are usually farther off or on greater curves, and the majority go from right to left, but they may go up or down. They stop or plunge off into infinity or behind the back out of reach of the visual field at a certain point. The impulse to lay off a true series in place has little or nothing in common with photisms or color symbols, and is more or less distinct also from other forms of synopsia, for in these the eye leads, and it is apart from synæsthesias generally because the motor element is dominant. Number forms help to continue a series and to lay it off so that it can be grasped as a whole. They must aid memory and reproduction, and thus facilitate elementary operations, for the analytic and synthetic nature of the series is more articulate. Some of these forms bring out some facts and relations, and others others. Hence I believe primary arithmetic might select elements from quite a number of them for use at the very beginning in the primary text-books. Very likely generalization could be drawn, combining good points of many for the advantage of all children.

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[1] Number forms are a special case of synæsthesia in which individuals always see mentally the digits and their combinations in some outline or arrangement in space which remains constant for the individual. Some of these number forms are elaborate schemes of spirals or circles, sometimes represented in two, and sometimes in three dimensional space. Those who have such forms often find them of considerable practical value in performing arithmetical operations.

Galton,[1] Patrick,[2] Flournoy,[3] Calkins,[4] and Phillips [5] have collected and studied many hundreds of number forms. They are not so constant through life as was at first thought, and some individuals have more than one. This suggests their plasticity. Their variety and perplexity is remarkable and no two are quite alike. Some are exceedingly vivid and definitely located, some with and on and others without lines. The origin of the imagery of some can be conjectured from blocks, a clock, etc., and that of others seems impossible of explanation. Probably the great majority of children have rudimentary forms and associate number with direction in some way. Number forms begin so early that Galton believed them distinctly hereditary. There are two classes of theories. One refers them to psychological association and the other to physiological conditions. They often originate even before letters or figures are known. Phillips asserts that "nearly all persons possess some idea of extension of numbers, more or less indefinite."

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[1] Inquiries into Human Faculty and its Development. Macmillan, N. Y. 1883, 387 p.

[2] Pop. Sci. Mo., February, 1893, Vol. 42, p. 504.

[3] Des Phénomènes de Synopsie. Paris, Alcan, 1893, 259 p.

[4] Am. Jour. of Psy., Vol. 5, pp. 270, 448, and 461.

[5] D. E. Phillips. Genesis of Number-Forms. Am. Jour. of Psy., Vol. 8, No. 4, pp. 506-527.

L. H. Chalmers[1] found only one person who denied all these forms. The circular type seems to lead, and some obtain their forms very young, probably when they first begin to think of number and time. Most of the sources can be traced to methods of teaching or to the natural activities of the mind at that age before puberty. One hundred and eighteen out of 282 persons had some sex associations with numbers. With most the preferred sex—slightly so with males and overwhelmingly so with females—is attributed to even numbers.

Traces of visualization of nearly all mental processes with numbers can readily be found, showing a prepotence of the eye over the other senses. The root of them all seems to be the motor factor. These forms, even though rudimentary, all show at least some power to think abstractly.

If we examine any good collection of number forms, it is very plain that most, if not all, of them are shaped more or less by the relations of numbers to each other, and some of them embody many and complex mathematical relations. This has suggested to a teacher[2] the advantage of giving to all children a uniform number form by having it constantly hung before them in order to facilitate their manipulation of numbers. This was suggested to her after experiences with children who had number forms and used them to facilitate their school work, some of them performing rather remarkable and rapid operations with their aid. The form she chose was ten vertical columns of figures, the first one from one to ten, the second from eleven to twenty, so that all the ones, twos, threes came on the same horizontal line on which they could count by tens. Any number could be taken as a whole and all the four operations and fractions could be readily visualized. Striking number relations came out, too, by going diagonally at various angles. On a blackboard, by underscoring, it was easy to count by any number from twos to nines inclusive; factoring, fractions, etc., were pedagogical possibilities easily brought out. Number forms are doubtless far more common in children than in adults, of whom about five per cent have them. It must, therefore, serve some useful purpose with children. We ought to have pedagogical experimentation upon this subject.

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[1] Studies in Imagination. Ped. Sem., April, 1900, Vol. 7, No. 1, pp. 111-123.

[2] Adelia R. Hornbrook. The Pedagogical Value of Number Forms. Ed. Review. May, 1893. Vol. 5, No. 5, pp. 467-480.

An extreme case of the personification of numbers is that of Miss Whiting,[1] which, I believe, is only an unusual efflorescence of tendencies akin to those most children pass through. First her numbers have personal traits: 1, 2, and 3 were children; 4 was a good, generous woman; 5, a reckless scamp; 6, an amiable but easily cheated prince; 7, an arrant rogue; 8, a haughty and very distinguished lady; 9, noble but generous to a fault; 10, a cold but great lord; 11, the herald of the king, and 12, the king. Her number relations were even more interesting and began when 5 coaxed a child to help him run away, which he did till he got to 10, but before he reached there stopped to try to put 6 into 12, where he wanted to go, but could only drop him next door. The designing 7 tempted 5 to help him instead of 6 get into 12. This angered 8, who thrust 5 into 13, where he stayed until the kind 9 rescued him and put him into 14. Again, 2 helped 6 into 10, but he could not stay there, for 7 is there and the place is not large enough for both, but 7 is strongest, and so ousts 6 into 13, which is a prison. 8, seeking justice, finds 6, who is doing nothing but crying, and puts him into 14, which is pleasant but beneath 6's dignity. Also, 7 is already there by the aid of 2. 8 scornfully hurls 7 into 15, a dungeon, where 5 had already got by the unintended activities of 3. He persuades 4 to pity and move him to 20, which is very desirable. 8 then quietly takes her place in 16, welcoming 9 to her side in 17, whence he goes to his own place in 18. Here 9 finds 6, from which 4 leads him to 24, a luxurious spot just fitting 6. Alas, that he cannot stay! Now he can be hospitable to 8, despite the noisy neighbor, 5, who has by his own efforts got into 25. 6 and 8 receive 12, who has made the first stage of his journey through his kingdom, and is now resting before going to 36. 12 must wait a good while, which is hard, for 11 to get everything ready for the king. 5, never satisfied, teases 6 to help him up to 30. 30 would be pleasant for 6 were it not for 7. 7 made a great effort to get to 21 by the help of the child 3; then by 4 got up to 28, ahead of 9, who is satisfied with 27 and is never anxious for himself. 8 is annoyed by the proximity of 7 and by a big effort goes on to 36. 7 sees him and spurs 5 to go with him to 35. Once there, he persecutes 6 until he goes with his enemy to 42. Here 6 languishes till 8 looks down from her hillside, 32. 8 swoops upon 5 and punishes him by putting him in 40, which is outside the gates of 48, the home of 8. Into 48 she takes poor 6, feeds him and plays to him. 7, in despair, creeps to 49, listens to 8's music, is discovered by 8, and pushed out into 56, and 6 is tenderly placed in the hands of 9, which has seen the tragedy of 6 and 7 from afar and with the help of gentle 4 rushed to 46. He was late here, for 12 was on the way, and so 9 hurried on. 5 had been punished enough, and so 9 took him to 45 and left him and proceeded to put 6 into 54. Meanwhile the lordly 10 moved on. Finding 5, who is over his mischievous stage, they go together to 50. 5 now is frightened at his mischief to 6, and henceforth is small and useful to 11 and 12. Generous 9 gives 7 one more chance to reform by offering an asylum in 63. Here 8, pausing at 64, looks back, and for the last time sees 7 ere she takes 9's escort to 72. 7 justifies 9's belief in his repentance, for he causes no more trouble, although after 10 puts him on his feet in 70 he does make trouble by helping 11 to get ready for 12. Such dramatic episodes the author used to follow, she says, with bated breath, carrying the fortunes of all up to 12 times 12, especially interested in the fate of 9, who still persists most vividly and most lacks self-interest, because he loses at every move, 18, 27, 36. The author deems these phantasies mere diversions of a child who has tried to find entertainment from an irksome study.

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[1] Individuality of Numerals. Ped. Sem., June, 1892. Vol. 2, No. 1, p. 107.

By dint of considerable questioning and some reconstruction, the following I believe to be a tolerably accurate expression of the state of mind I found in a bright thirteen-year-old boy, incorporating some of his phrases and interpreting others into my own language. The number 7 is the "darndest" of all the one-figure numbers. In the first place, it is odd, and that is much against it. It is worse than 5, because that at least readily doubles up to 10, which is within easy reach, as everything up to and including 12 is. All above that is a little remote. You cannot factor 7. You can only add its parts, and 3 and 4 do not get on well together in close quarters, so 7 seems surly, selfish, impenetrable, and aloof. It is not social, and the "7's are the hardest of all parts of the multiplication table, at least I hate that number worst of all digits." 8, on the other hand, is easy and wide open to 4 and 2 and it is even, and that gives it a better character. "It is just two 4's or four 2's, and it does not care which. I like about everything that has an 8 about it. 8 was my best year, and I have noticed that children of 8 are better than those of 9 and far better than the 7-year-olds. The very sound of its name suggests that you have just eaten, and the figure is so smug, tight-laced, tidy, and balanced. It is really 2 o's on top of each other. I think, too, that two 8's or 16 will be a great year. 9 is first cousin to 6, and a beautiful thing about it is that it is three 3's, very much as 4 is two 2's, 16 four 4's, and 25 five 5's. I used to think

German children hated the number 9 because their *nein* meant no. It was as if that was their balkline. There is a great deal more to know below it than above, though there is not as much in it as in 8." 7 always points up to 14 and 21, but these higher numbers we know and care less about. 11 is disgusting. It is the first upstart that takes on a span of figures, and yet it never opens and has no organization in it. It is just a bunch of units. What makes it all the worse is that it is between two of the most magnificent of all the series. 10, which has the first place in counting where you can really stop and rest a while, which halves so easily and opens the way into the whole decimal system, takes the 2 crabbed 5's and holds them together in such a friendly way that you can't help loving it for so doing. Besides, 10 is 8 plus 2, and these are the best of all the number of children. On the other side of 11 comes 12, "which takes you fairly into the upper story." It takes in 2, 3, and 4 in the most hospitable way, although they never agreed before, and makes them friends. But for 12, 3 would almost have been a man without a country. It stands out so from 2 and 4, which like each other but hate and are hated by it. But, thanks to 12, it is now harnessed up at least in treaty relations with them. Like 8, 12 is the double of a double, but it is rather more aristocratic, and also better off, roomier than 8, for it takes just one 8 and half of another, and this makes it friendly with 16, which outranks and rather looks down on it. It is decidedly against 14 that it is just two 7's, but much in its favor that it is also 10 and 4. As to 13, 17, and 19, they are the most unmanageable of all in the 20 family. They are exclusive and balky. 17 is the worst and its only good trait is that it has a 10 in it. 20 is fat, rich, contented, and very restful. 2 is a happy little baby, but 3 is more spoiled and gives more trouble, 4 is the very first square landing place upstairs. "With 4, you know where you are at." It is so solid and reliable and open-minded. This lad was puzzled why 9 and 15 should be so different from all the other odd numbers which were shut up, also why 21 and 81 could come apart so easily, and none of the others from 21 to 101 would do so. This I could not answer. I have heard, too, of a boy who said that we can wade out, although over a very uneven bottom with both stones and mud, in it as far as 10 and some as far as 12, but there we must take a boat and row on out to 20. That is the dock where we can take a ship and launch out on the infinite number sea, sailing, I suppose, being for him notation of slate work. The larger numbers do not have so much differentiation. Now, such number psychoses if common and typical would certainly favor the Greek method and spirality. They show that the small numbers have an individuality due to but persisting in spite of their functional relations to their numbers, and that these characteristic traits can be clearly distinguished from the two other groups which spring from the number named and the symbol respectively, both of which latter sometimes have their own number forms and associations superposed. These individual traits suggest perhaps one factor in the psychic processes involved in elementary mathematics, which may help explain the unsolved problem of the Pythagorean entification of numbers, although their personification and categorization are different, despite the fact that the Alexandrian philosophy did personify categories.

An extremely interesting case of number personification was discovered almost accidentally by Leuba.[1] Mrs. X., a person of good judgment and culture, was well in the teens when she realized her peculiarity, which she describes as follows: "Figure 1 is distinctly negative, it does not interest me, but is a him, goes about in trousers, is grown-up and slender. I have no further clear idea about him. 2 is a good-looking, fresh complexioned, blond, commonplace man, a sort of brother to 3, though not intimate with him; 2 is a little older than 3. 3 is a pretty girl about 16, with curly hair and rosy complexion, unreflective and merry; she is very devoted to 4, who makes light of her. 4 is a handsome brunette, far more clever than 3; she is reserved, some might think haughty, but real nice; for 3 she has an affectionate endurance. 5 is a frumpy, tiresome, flavorless old woman, with a wig, living in a boarding house, a little fat, a sort of figure 5. It is easy to hoodwink her, and she is slow of comprehension. She chaperones others. (It occurs to me that it is always summer; I do not believe it ever was winter, the girls are always wearing summer dresses.)

"As soon as I dwell an instant on the number, its personality materializes, but is unnoticed if I am in a hurry or if the arithmetical meaning is of much concern. The human element was more emphatic when I was young, and has declined during the last six years, perhaps on account of great sorrows. I have lost much passionate interest in people, otherwise their personality is unchanged. If I have to add 123 and 456, things will happen between these numbers as when I used to have to sit by people I did not like. For instance, with 8 and 3, the sum could not be done. Their doings were not quite spontaneous, but were a little guided, as with dolls. I always abhorred arithmetic, and often had very exciting times with my figures, but could not modify their character. In idle moments, on my slate I would develop a human appearance, and often felt I was not doing them justice when writing them down. 6 is a young man of about 20, a male counterpart of 3, for whom he is suspected of entertaining tender feelings; his hair is curly and blond; he is a beauty, broad shoulders, 5 feet 11 inches, an English type, fond of boating. 7 is a decorative old piece of bric-à-brac, in the shape of a retired lawyer, perhaps; tall, thin, very neat, using beautiful English, and busied in trifling matters; decorous, distinguished, hair parted in the middle, brought forward at the sides; always predicts weather or trouble, but no one heeds him. When things announced do occur, he always says 'I told you so.' 8 is a male counterpart of 4, about 28, tall, dark, good looking, clever, traveled, accomplished, fences, plays music, speaks several languages, conceited, sarcastic, reserved, attractive, and I am rather in love with him. He and 4 decidedly care for each other, but always hurt each other's feelings. 9 is a hard-working, uninteresting person, fit for a trustee, honest, intelligent, limited, without imagination, a good family man; but I do not know his family.

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[1] "The Personifying Passion in Youth with Remarks upon the Sex and Gender Problem." The Monist, July, 1900, Vol. 10, No. 4, pp. 536-48.

"The compound numbers rarely have a constant character, although 19 is much like 4, 20 like 6, and 15 has a family resemblance to 3. All have been gentlefolk, though some are degenerate; 5 for lack of means. She always talks of the past, poor thing, and has no children. It is an interesting collection of people to have around, but I do not see clearly their sort of life. They are rare people, have no end of love affairs, and I witness thrilling scenes, but it is strange they do not learn better; but they neither marry nor grow old. Their relations with each other are episodic. One reason why 4 and 8 wound each other's feelings is that 4 used to trifle with 6, a nice, boyish fellow; now she does so less. 3 and 6 are very open in their regard; 3 is so young and is in awe of 8, who used to tease her pleasantly. These scenes take place on any chance when my attention is caught, and I often say to the figures, Go away and let me do my work, for their intrusion is often as if someone were speaking to me. Their mood does not change with my humor; they are never distressed; what I read often suggests their actions. I sometimes wish I might have been left alone to live with these people a while. It seems strange that others cannot understand, but it is like oil and water. It came out that other things, too, had sex and individuality—furniture, fruit, flowers—my rotating chair is a dullard. In my teens this personal side of things dominated me. The letters of the alphabet have a personality, but vague, and I am only well acquainted with A, a handsome, distinguished matron, without imagination. B is a middle-aged man and sometimes a woman. This applies to capitals and printed letters only; the small ones are the children of the large ones, although *a* is not necessarily child of A. C is a gallant youth, sort of captain." She thought perhaps the irksomeness of arithmetic made her dwell upon the personal side of figures, but it was not so with letters. "A tall, thin tree is likely to be a woman; tulips, poplars, beeches are always so, while oaks are masculine. Some species have both sexes. Apple trees are always old kindly people whom I just love. To one I used to feel like a strong mother caring for me and for the robin; I talked to her, would leave her things to keep when I went away in the winter, e. g., dominoes, which I used like dolls, for I hated the latter, they were so stupid. I could turn the dominoes into any kind of person at will. For books I had a strange liking, yet fear. The warmth of my feeling for persons often made me really ill."

No doubt Mrs. X. has a riotous imagination. She never had much to do with God, and had never endowed Him with a very lusty personal reality, except when frightened.

The tyranny of numbers is now a much used phrase in Germany to designate the unnaturalness of instruction in arithmetic, and especially the dominance of naked numbers and pure arithmetical processes. This is what the German text-book in arithmetic stands for, so that those who wish to make the subject more concrete sometimes oppose the use of text-books. Fries takes up the subject[1] by studying his own grandchild in a new and interesting way, remarking that we really know more about the development of the concept of the different numbers among animals than we do among children. What is desired is to know how the command of the numbers represented by the first digits arises in the first six years of life. There is here a sad gap in child psychology. Fries began with a grandchild of two, who, at Christmas, was playing with ninepins. Preyer had declared that one could not take away one of these pins without its absence being noticed by a ten-months-old child. After playing eight days with the above child, Fries reached only negative results, which showed that Preyer's child knowledge was only quantitative and that he had recognized only a change in a specific magnitude. After all the ninepins were set up and the child's back was turned, some of the pins were taken away, but when three were gone nothing whatever indicated that the child perceived anything unusual. If the number was reduced to two or three, he would cry, "Others," although these more often contented him. He seemed to perceive the three pins at the three angles of the triangle, and to the rest he gave little heed. Thus he had only a vague idea of manyness. Only if toys are of the same size, form and color, can the experiment be pure. If, for instance, there are different animals and the child misses one out of half a dozen, this observation is worthless. Further careful experiments showed that the child really commanded no number higher than two. Preyer says of his own child, that at the age of eighteen months, when it had seen its mother bring two towels where she usually brought one, that it noticed the difference. Even the demand for the second object of a pair may have been more or less quantitative at first, but certainly two was perceived in sharp differentiation from one by Fries's nephew, and probably was truly qualitative. Unfortunately, the child could count, and on hearing one and two, the other words in the number series were set going. After nine months Fries saw the boy again and found that the relation between the numbers and the number words for one and two had considerably cleared up. He knew pairs of things and could count them. The child gave great attention for a time to number and counting, and counted all things countable; but one and two were associated with small and large, which were in a sense their background. Form and magnitude were always in evidence. Now the child commanded the number three, but the designation of it was made vague by the memorized number words. Later, at the age of three and a half, the triad was found to be mastered, but if more than three things of the same kind were present the child would always say, when asked how many, that he did not know, and never used the word many. Threeness was found to be mastered not only in special adjacency, but also in temporal sequence or succession. Just after the child had finished its fourth year he was seen again and other experiments on the number four were made, which showed that this was by no means established—was, indeed, so uncertain that this magnitude must be recognized as a concept still in the making. Pestalozzi proposed to make counting or number work an element of instruction coequal in importance with form and language. Fries was prompted by these preliminary experiments to propose a *questionnaire* as to the appearance of the idea of twoness, the relation of number to quantity, the special aids and hindrances in apprehending and naming each number, the effect of ordering and grouping upon all numbers beyond three, the effect of being able to count, and the real number knowledge a child of three possessed, and how the child could be best helped along the successive stages in the acquisition of number. It would be interesting, also, to follow this process in subnormal children. It is often remarkable how great errors those in the lower grades make in the estimation of numbers, distances, and sizes. *Gemüthlichkeit* proverbially ceases where numbers begin.

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[1] Theophil Fries. Eine Lücke im Arbeitsfelde der empirischen Kinderpsychologie. Die Kinderfehler. Zeits. für Kinderforschung mit besonderer Berücksichtigung der pädagogischen Pathologie. Elfter Jahrgang, 4. Januar-Heft, 1906. pp. 109-116.

Stumpf's child[1] early in its fourth year seemed to distinguish two and three. Perhaps three only seemed more than two. In the sixth year a new passion for number and counting arose. He could already count to a hundred, read and write numbers, and add small ones. He was constantly proposing and solving little problems. Just before he was six he multiplied 648 by 2 in his head in a very peculiar way. His mother exclaimed that he saw only numbers even in the most attractive toy wagon. Houses on the streets, horse cars, people were counted. He developed great curiosity about house numbers, and soon worked out a multiplication table which he wrote. Soon a similar passion developed for fractions, and the child became almost troublesome with his questions. This passion for reckoning was an episode of only a few months, and in school he showed no special interest or ability in arithmetic, but in his ninth year came, rather suddenly, a craze for learning chess, and in his seventeenth year, when he was in a humanistic gymnasium, came a similar passion for learning physical and technical science that threatened his love of language.

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[1] C. Stumpf. Eigenartige sprachliche Entwichelung eines Kindes. Zeits. f. Päd. Psych. & Pathol. Dezember 1901. Jahrg. 3, Heft 6, pp. 419-447.

Jegi's girl,[1] at two years, named the numerals in correct order to 12, and occasionally to 17, but had little sense of their real value except in the case of 1 and 2. There seemed a vague feeling that the higher numbers applied to greater magnitudes. 3 was a favorite expression for a small number less than 6 or 7, while 8 and 11 were used in designating more. She would count the stairs, of which there were 17, in going up or down, but would end with the statement that there were 11 or perhaps 13, rarely giving the right number. At first the numerals were not mentioned in the right order, though a lower number was never put in place of a higher. During the four months following her second birthday there was little progress. The number sense unfolded very slowly, although she showed marked improvement in the ability to compare magnitudes, but made no attempt to state her conclusions numerically. All measure value was accomplished by familiar concrete units.

Studies of children show that there is an occasional child that seems to be almost entirely without ability to count. This type of feeble-mindedness would seem to be associated with inability to keep time in marching or to learn to read or pronounce letters in the right order. Imperfections in the series function or faculty indicate grave disorder. Again, many children show marvelous sagacity in guessing numbers right, occasionally to a degree that seems to cause a superstitious feeling that there is a kind of intuitive divination that is independent of and far more rapid than counting. Can it be possible that the 73 different number games and puzzles that Phillips found cultivate some flashing up of an old rudimentary instinct that guessed approximately the number of very many units without counting them, as we now intuit between 3 or 4 as quickly as 1? Child study also shows a strong propensity to tally by beats before the number name, that learning the latter is a distinct step, although the order of the number names is sometimes long and persistently wrong. There are many interesting phychological chapters here that have not been sufficiently exploited, e. g., the errors in writing numbers backwards. The possible functions of eye geometry which may hold a place for that science similar to the exercises in instantaneous counting for numbers.

The English philosopher Hobbes said, "at the age of four I could talk, read, and count," and he thought the latter of cardinal import. Man he conceived as the counting animal. *Numero ergo sum* might have been his motto, for he believed that the arithmetical faculty was almost the organon of thought itself. Reasoning for him consisted in simply adding and subtracting words, phrases, and ideas. Mathematics he called "the only science it hath thus far pleased God to bestow upon man." It was the mother of natural science, and logic is its product. Its study is the best propædeutic to that of the higher powers of man. To-day genetic psychology is in some sense reinforcing this view, for the study of children and of the pathology of the number sense are suggesting that there is here a well-nigh lost chord of psychogenesis and mental light and power which we have almost quenched. This has been done by the premature and excessive emphasis upon utilities and applications and the short cuts of algebra which progressively tend to cause arithmetic to atrophy from disuse. We are, however, now happily already beginning to see that algebra should be postponed till arithmetic has had its fuller innings. The chief quencher of the pristine powers of the soul in this field, however, and more disastrous than either of the above, is the precocious forcing upon the child the mechanism of written work and of large numbers. These methods necessarily seem arbitrary and meaningless to the child. The technique of long division, for instance, not to speak of the other "species" with three and four place numbers, the intricacies of manipulating vulgar and even decimal fractions on paper, slate, and blackboard—all these should be postponed until their principles have been evolved out of number series and, for the most part, well down within one hundred, in which everything is implicit. Within generous limits, the smaller the number the more effective the work. All the bitterness and obscurity of fractions, proportion, percentage, squares, roots, cubes, and the rest can be got and understood out of one and two place numbers and by headwork, which in children is kept pretty near to sense intuition. An occasional help, e. g., grouping dots, is quite sufficient. Large numbers should be avoided as a boy learning to swim should be kept out of deep water. There is no hurry even about notation or enumeration of any but small numbers that can be readily made *anschaulich* at least in mental imagery. All work with large numbers should be, therefore, avoided and all written work minimized and deferred. Even to count big numbers, as some children like to do as a kind of excursion or voyage of discovery into the unknown, should not be encouraged. Many savages can only count 2; 3 is nameless, or here the vague "many" begins. For other tribes, 4, 5, or 10 is the frontier of their arithmetical knowledge. This the child, in a vague, general way, repeats, for all above 10, 20, or 30 are, at different stages, unintelligible names, which he can be taught to manipulate only blindly and by processes that have little meaning to him. The intelligence with which he performs them is not very much above that of a trained chimpanzee who is broken into many points of human etiquette, all of which are soulless and without import to him, and if he lapsed to his normal state would for the most part be forgotten. When the child leaves the elementary number series that can be sensed, and when he gets outside of the short range of his counting instinct, he leaves behind nine tenths of his soul. The very act of counting has taught the child that number can be applied to every plurality, and yet our texts and teachers assume that he must be incessantly reminded at every step that, e. g., 10 and the rest may apply to apples, stones, pegs, children, stars, etc., as if in the counting stage he were not in the very paradise of this knowledge which the teacher has left. He realizes this better than his instructors, for in the counting stage he lives in sense. Indeed, if we applied psycho-analysis to the teachers, we should doubtless find that the reason they so insist upon this triviality of application is because of a deep unconscious instinct in their own souls that prompts them to atone to childhood for the outrage of snatching the child away from the number series and pushing him out so soon beyond his depth, where he is utterly helpless and only does blindly what he is told. These premature ciphering methods, instead of keeping him near the shore till the dim mystic sense of the infinite sea of number begins to murmur like a seashell echo in his ears and draws him on naturally by its own unique charm, push him out over his head, where he must swim or drown, with only the aid of a few floaters in the way of methods that are given him as life preservers. The time has come for us to turn back the bookmakers and look again at the child and let him lead us.

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[1] John I. Jegi. The vocabulary of a two-year-old child. Child Study Monthly. January, 1901. Vol. 6, No. 7, pp. 241-262.

Again, so far as this method is adopted, we shall really get the very highest disciplinary value, which we prate so much of, but which has been so utterly lost by debauching the number power of childhood. It is attained only when elementary number work is made as rapid and intensive as it is possible to make it with the very sharpest focusing of attention, for nothing in all the school curriculum needs or cultivates concentration to such an extent. The child, as by a kind of scholastic first intention, can be taught to manipulate small numbers with a speed few teachers dream of. Laboratory experiments show that many adults begin, e. g., to add long columns slowly, even counting an occasional number and even going back, losing tab, etc., but by dint of a little practice, a rate almost equal to that of a skilled accountant can be attained, at least for a brief period. In children, this power, with not too great practice, is innate and can readily be brought out. I have seen children from nine to ten, or even younger, follow the teacher, e. g., as he says to the class, Take 10, subtract 2, multiply by 8, deduct 14 and 25, multiply by 4, divide by 50, add 1, multiply by 9, add 3, divide by 10, add 7, multiply by 3½, divide by 7, add 4, multiply by 7, add 18, divide by 9, subtract 5, multiply by 4, subtract 1, multiply by 3, add 5, subtract 50, etc.—all this about as rapidly as the teacher could pronounce. Again, children of this age, or even younger, can easily be taught to count by twos and up even to nines, to proceed backward or forward, to square each digit, to extract every square and cube root found within 100, to factor and split numbers into fractional parts, and to juggle with number puzzles and play with various tables, magic squares, etc. This is arithmetic in which bright pupils often come to excel their teacher in both speed and precision. Very brief periods of intensive drill in this do the work, save time, cultivate the power of attention, keep the mind from lapsing to a slow old Dobbin pace which characterizes so much number work in the schools. The characteristic "sum" in our primary arithmetic makes much ado about a single one of the steps in the first of the above exercises, and thus, by trying to clarify, muddles. The counting instinct is strangulated, treated as if it were an evil to be eliminated, instead of full of the promise and potency of all the higher arithmetic and algebra. Thus all mental number work should be done with the very utmost rapidity and stop at the first sign of fatigue. Here at least we are within easy reach of a higher power of the human soul, latent in nearly all children, which written work always slows down and which rules and methods devitalize.

The other curse which seems to have fallen upon the schools in this field is that of logical demarcations of processes, such as notation, enumeration, and addition, as a thing by itself before subtraction, then multiplication, division, fractions, as if these were really independent provinces instead of being artificial distinctions forced in to support what God and nature originally made in one and inseparable. Man did not begin to add and then learn to subtract and then perhaps multiply. These distinctions were wrought out by abstraction later, and to the child are ghastly, like all abstractions. All he needs to know of them is simply the meaning of the words, but the processes should be all taught indiscriminately and together. With small numbers it is as easy to do one as the other. Indeed, they support and explain each other, so that to analyze and dissect them is to devitalize the mathematical processes. To divide by two is halving, and that is fractions or it is subtracting half. All processes are involved in counting up, down, skipping, etc. When after all practice in this kind of work the time for notation and pencil work comes, these should always and only at first be by writing down processes already very familiar and just performed in the head, and therefore with small numbers. Thus, the technical can readily be seen to be rational, and the child's own experience will have generated light enough for him to see and explain his own way, point by point and step by step. Only when the equivalence of the written and the mental processes for small numbers is clearly seen and fully equated as identical should an adventure be made into the larger numbers. Then only can the value of methodology here involved be appreciated or its details understood. Thus, I am convinced that we are sadly off the track here and need a new dispensation and new method, and even a text, when the time for a text comes, if it ever does, if our pedagogy is to fit the needs of the child and economize its mental powers.

The idea of ratio must not mislead because of its kinship to the word reason, nor must we forget that the comparison of two or more objects is a very fundamental process in the early stages of psychic development, and that besides being implicit in very early stages of development, the ratio idea is dominant in percentage, proportion, roots, logarithms, and the higher mathematics. We may grant, too, that equating and all relating of magnitudes of all kinds is implicit in many activities of reason and of daily life, that the category of quantity is involved where any deliminated number is treated with others, that measurement involves correlation of values. But we must conclude from e. g. the discussion between Dewey [1] and Phillips [2] not only that mensuration has its dangers and easily lapses to busy work in young children, but that it belongs to a very different psychic order and a different stage of development from the series process, and that, while they may overlap at certain points, they are essentially as discrete as time and space, and that the time-series process has a power faintly akin to that which Kant suggests in his *schemata* of mediating between sense and the understanding. Succession, repetition, seriality, with the discreetness and specification given by motor methods of enumeration, have a value of their own and are not merely a definition of value in educational procedure. Fruitful as are the relations between how many and how much, between plurality and quantity, the cardinal and ordinal definition of changes of consciousness or consciousness of change in series or the slow evolution of numerical punctuation is very essential for extending the mental span, and carries with it a no less precious burden of philosophical meaning than that which has been explained into and out of ratio.

Pure number drill, then, should be as incessant and rapid as possible, oral first, and then in writing. The psychology of number suggests higher powers of man. Lightning calculators, guess, counting by intuitive perception (as has been shown [3]), the remarkable speed acceleration that comes to reckoners by practice, which under older theories would have perhaps suggested vestiges of a state before the fall and to-day might, and doubtless will, do good service for psychogenesis in the development of recapitulation, suggest latent capacities which arithmetasters neglect to bring out because of excessive and premature application to concrete things. Even the genuine love of certainty as such that children have [4] is also in point here. Again, behind even dramatization and personification of numbers lurk intimations of their conventional power which are full of promise and potency for the pedagogue who is also a geneticist, who realizes what can and should be got out of the number series *per se;* while number forms doubtless represent a stage through which all pass, although they forget it, but which survives, as does finger counting in a few, perhaps because they were not superseded at the psychological moment of growth by a more geometric development of the early and inveterate instinct to deploy number in spatial forms, in the elemental eye geometry which preforms the mind from the more explicit demonstrations that belong farther on. If these things be true and they are ripe and even cry out for fuller treatment, then squares, angles, circles, cones, and other Euclidean forms, constantly kept in view and alluded to upon occasion, would help young children to supplant and perhaps avoid the development of the fortuitous crude forms which are products of their blind tendency to correlate number with forms in space.

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[1] John Dewey. Some Remarks on the Psychology of Number. Ped. Sem., Vol. 5, No. 3, 1898, pp. 426-435.

[2] D. E. Phillips. Number and its Application Psychologically Considered. Ped. Sem. 1897. Vol. 5, No. 1, pp. 221-282.

[3] Catharine Aikin. Methods of Mind Training, Concentrated Attention and Memory. N. Y., Harper. 1897. 110 p.

[4] See M. H. Small, Methods of Manifesting the Instinct for Certainty. Ped. Sem., Vol. 5, No. 3, pp. 313-381.

Bidder[1] tells how he owed his prodigious skill to working long with numbers before he used or knew any written symbols, even squaring three place numbers, and thinks we retard and blunt the arithmetic faculty by figuring too early. This gives the natural *versus* the artificial or paper method, and progress is vastly more rapid. This natural method, he thinks, is mental, which is, up to a certain point, incomparably superior to written arithmetic, and he thinks that even the knowledge of figures is dangerous to young children, while their habitual use slows down their rate of work and deadens interest. This, too, he thinks, is akin to the artistic and æsthetic impulse to mathematics which Helmholz ranks with the practical and scientific. It leads to love of it for its own pure sake. Although calculation means pebble work, and abacus even, if the graphic order be used at first, pure number work is always the heart and core of it all. Every advance in the pedagogy of elementary mathematics has been deferring to some lost historic phase of the subject and paralleling the child more accurately to the race, which latter the teacher should therefore study. Hence, generalized arithmetic or algebra should come late. There has always been an inductive element, so that applications are in a sense going back to sources.

The number sense, then, begins with the discrimination of one thing from another or when instead of an undifferentiated continuum there is distinction, demarcation, a this and a that. It arises from discreteness and its psychological rudiment is implicit, low down in the animal world, wherever objects attract or repel or are attended to or not. The very law of contrast and opposition reinforces dualism, and so does bilateral symmetry, the two arms, legs, eyes. Only unit monadity is a more dominant concept. Triadity has left the next most inspiring monuments in the soul. Even sense grasps three but no less quickly and surely as it does one. Logic, and perhaps our common thinking, more than we suspect, like the rhythmic sense, very easily falls into the three-step movement. After point, line, and triangle, comes the square and the quaternion psychosis or two pairs, and now we have the system of squares, roots, factors, and ratio. Then evolves the pentad, sextad, septad, octad, nonad and decad, un-decad and duo-decad, the latter at least, if not the decad, opening up the whole history of number, for these composite unities give us the keys of all primitive synthesis and analysis, so that it was a true philosophic instinct that prompted the Grube system, which lingers long upon and exhausts all the possibilities of ten before going further. Each of these elemental numbers is the nucleus of a copious symbolism. Each has its own unique traits, functions, relations, and stands out as a marked individuality by itself because both of what it is and can do, and imparts all its traits to the higher numbers, into which it enters as a factor. In name and notation, too, concrete things that embody them share their mystery. Three is the trefoil, four the quadruped, five the hand, ten both hands, twenty the man with all his fingers and toes, the embodiment of the vigesimal system. All the processes of synthesis and analysis are thus involved at the very start. Now it is with these mysteries nascent in his soul that the average child enters school, and although Yocum[1] found that 18 per cent of the children could not tell how many hands they had, 23 per cent did not know how many legs a horse had, and 48 per cent did not know the number of fingers on their hands, the assumption that such a lack of knowledge indicated a corresponding ignorance of number was not proven, but on the contrary many of these children knew quite as much of number as those who had this particular knowledge of concrete things. Counting is thus the first stage.

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[1] See Benchara Branford. Study of Mathematical Education, including the teaching of Arithmetic. Oxford, Clarendon Press, 1908. 392 p. Chap. 7.

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[1] Albert Duncan Yocum. An Inquiry into the Teaching of Addition and Subtraction. Phil., Avil Printing Co., 1901. 92 p. (Thesis Ph. D. Univ. of Pa.).

In Europe there has been much discussion concerning the disposition of dots, from one to ten or twelve, most favorable for visualizing small numbers, and the Born, Busse, and Boehme methods arrange these dots in two parallel horizontal rows, while Hentschel, Beetz, Sobelewsky, and Kaselitz give precedence to vertical alignments, but each of these systems differs from the other. This is very important for the reckoning machines which are much in use on the Continent, and none of these machines square with the Russian method or that of many of our primary arithmetics, which dispose the dots in one horizontal line. According to Lay's careful experiments,[1] it would seem that the Born system, with certain modifications, had the distinct advantage. The two dots are vertical and all the other numbers up to 16 are disposed in parallel horizontal lines and in groups of four. This arrangement, even for five, Lay found preferable to a more triangular arrangement of three or four dots with one in the center, and even for nine, with three rows of three each, and to sixteen with four rows of four dots each. The advantage consists in that, by his arrangement, vertical or oblique lines can partition the dots, suggesting elemental operations, and by diligent practicing of all the possibilities he believes distinct advantage is secured in the way of mental economy.

He[2] fined an almost unprecedented confusion in the theory and practice of counting which underlies elementary arithmetic. The number concept is conditioned by both space and time. While children tend to group points in triangles, squares, etc., they understand that the number is distinct from the figure. The narrowness of consciousness, many have said, makes simultaneous perceptions of number impossible, but Lay found that when children counted rows of marks they made 107 errors, and only 7 in counting when the arrangement was in squares; that in counting figures there were 51 errors, as against 14 made in Born's number groups; that with the well-known Russian arithmetical machine there were 116 errors, as against 23 when the objects were arranged in squares. In general, for all children from six to twenty, in city or country, there is great loss of time and effort in using rows of objects instead of unitary number pictures or groups. In the first two school years the latter requires, according to Lay's estimate, only one fifteenth of the time and effort necessary with proper groups, so that he finds here an important factor in school fatigue and thinks our processes of elementary teaching of number need radical reconstruction in order to avoid this needless waste.

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[1] W. A. Lay. Führer durch den ersten Rechenunterricht naturgemässes Lehrverfahren gegründet auf psychologische Versuche und angeschlossen an die Entwickelungsgeschichte des Rechenunterrichts. Karlsruhe, Nemnich, 1898. 156 p.

[2] Ueber die Zahlvorstellungen und den grundlegenden Rechenunterricht. Die Experimentelle Pädagogik. I. Bd., Heft 3/4. 1905. pp. 129-166.

Külpe[1] showed that the perception of color, figure, and number were closely related. So, too, the problem of color is favorable for expressions concerning figure, and *vice versa.* The apprehension of number is best when the question is concerning number, and not concerning form, color, or elements. All expressions concerning number are always of less value if they are irregularly grouped. Cattell[2] found that in the apperception of lines, adults guessed rightly only when there were from four to five lines, and that the real number was generally over- and rarely underestimated. Dietze[3] found that his observers had an irresistible inclination to group rhythmically the successive beats of the pendulum, and Schumann[4] and Nanu found that this essentially favored the right apprehension of number. Warren[5] found that adults could rightly apprehend three points of light simultaneously, and five successively, in a time of exposure so short that counting was out of the question. Messenger[6] found that the amount of overestimation of the number of points increased with the size of the points and with their distance. Nanu[7] showed that the number of judgment followed either immeately and independently of memory, or mediately, and also that when, after a few points, many are exposed, the number in the latter case is overestimated. The maximal number of serial optical impressions that could be rightly estimated was never more than five, but by regular ordering, a few persons—among them Külpe—could make correct judgments of 30, 50, and even 100 simultaneous stimuli. The theory that with the correct comprehension of a large number of impressions the number consciousness is not connected is erroneous. In all these experiments the exposure was but little over three hundredths of a second, so that counting was impossible. Messenger found that if the stimuli were not arranged in linear order, but were united with figure forms, there were better results. Thus, in general, for adults and for children of the first school year the fundamental doctrine of the number methodists is wrong.

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[1] O. Külpe. Outlines of Psychology, trans. by E. B. Titchener. N. Y., Macmillan & Co., 1895. 462 p.

[2] Ueber die Tragheit der Netzhaut und des Sehcentrums. Wundt's Phil. Studien. 1885. Bd. 3, S. 94-127.

[3] G. Dietze. Untersuchungen den Umfang des Bewusstseins bei regelmässig auf einander folgende Schalleindrücken. Wundt's Phil. Studien. 1885. Bd. 2, pp. 362–393.

[4] F. Schumann. Beiträge zur Analyse der Gesichtswahrnehmungen. Psychologische Studien, 1. Abt., Heft 1. Leipzig, J. A. Barth, 1904.

[5] H. C. Warren. The Reaction Time of Counting. Psy. Rev. Nov. 1897. Vol. 4, pp. 569-591.

[6] J. F. Messenger. The Perception of Number. Psy. Rev. Monograph. Sup. 1903. Vol. 5. 44 p.

[7] Helene A. Nanu. Zur Psychologie der Zahlauffassung. Würzburger Dissertation, 1904.

Lobsien[1] gave simple "sums" in arithmetic to 54 schoolboys of eight years of age. The examples were carefully selected and graded as to difficulty and to their attainments. They consisted mainly in addition and subtraction. At one session these examples were given under normal conditions of the school, and in the other the students were told that they were examinations and would be marked. The time each occupied with the task was also noted. Both tests fell in the same hour of the day. The first normal test gave a total mark of 1,044, while the examination was 990. In the normal there were 39 errors and in the examination 50. The results were studied and graded in various other ways. The examination environment and psychosis not only lowered the quality of work for all, but when the students were carefully graded as to their ability it had the most deleterious influence on the best and the poorest pupils, and its ill effects were less with those of average ability. "The result of the examination never gave an even approximately correct idea of the ability to work," and was especially unfair to the best pupils. "Why," asks the author, "do we cling so firmly to an institution that is so completely unfitted to do what we want of it?" Why do we spend so much time and energy, anxiety, excitement, fear, and grief, when all these are the deadly enemies of healthy, happy childhood? Fear is a poison of the body and soul and paralyzes energy at its very source.

Voss[2] gave adults long columns of figures to add and noted the oscillations of the times of this work. He found that deviations from the average rate were somewhat rhythmic and regular. Practice lessened the number of variations both ways and exalted the middle or average zone. Fatigue lessened the short average addition times and increased the number of long and very long times. Practice, of course, shortens the time and approximates a certain maximum which is never quite attained. Indeed, the very short rates of work which sometimes occur with little practice become more seldom as practice advances. The chief effect of practice, therefore, is to equalize the time of the single additions and to bring them within a certain short, but not the shortest, time. Fatigue, on the other hand, increases the number of slow times. *Antrieb*, initial impulse, reduces the single times to their shortest by sudden increase of rate, but cannot maintain it. The most interesting results here were the discovery of regular fine variations of mental work which had only been suspected before, and the exact periodicity of these variations appeared with surprising distinctness. The most frequent of these variations were $\frac{13}{5}$ of a second, next $\frac{10}{5}$, $\frac{7}{5}$, $\frac{16}{5}$, $\frac{19}{5}$, $\frac{22}{5}$ and $\frac{25}{5}$. Positing Wundt's definition of attention as a periodical function of consciousness, these oscillations may be due to attention. Fechner and Helmholz[1] thought them due to the changing intensity of optical impressions which Urbantschitsch[2] investigated for the ear and ascribed to fatigue of the *acusticus*. Lange found the variations, but thought them due to a central change, falling in well with Wundt. By electrical stimulus he found the interval 2.5 seconds, for the eye 3.4, for the ear 3.8. Münsterberg[3] concluded that these variations of sight were purely peripheral and due to fatigue of the fixation and accommodation of muscles, and the same of the ear. But Lange's[4] demonstration of this variation by electro-cutaneous stimulus eliminates muscles. Also Eckener[5] and Pace[6] have shown by rotating discs that eliminated accommodation that these muscles were not involved. Mueller's view that optical oscillations were due to temporary insensibility of the retina has been refuted. Eckener finds two kinds of oscillations—one with clear consciousness and the other with some abnormal feeling or dizziness. Some have inferred a similar variation for memory images. Lehmann ascribed it to restoration when the blood pressure was least in expiration, and with electrical stimulus he found some agreement. Marbe doubted the oscillations. Heinrich[7] confirmed these oscillations for sight, and thought them due solely to changes in accuracy of accommodation and attention. Voss believes this a general law. Estel[8] showed a periodicity in judging differences, and Glass[9] found all these rhythms a multiple of 1.25 seconds. Voss finds this approximately his own. Lange found variations between $\frac{13}{5}$ and $\frac{19}{5}$. Many have emphasized the relation between psychic activity and blood pressure which Mosso shows influences the volume of the brain.

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[1] Marx Lobsien. Examen und Leistung. Die Exper. Päd., 1905. Vol. 1, Heft 1/2. pp. 30-35.

[2] Georg von Voss. Ueber die Schwankungen der geistigen Arbeitsleistung. Psychologische Arbeiten, Vol. 2, 1899, pp. 399-449.

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[1] Helmholz, Handbuch der physiologischen Optik. Leipzig, L. Voss, 1896. 1334 p.

[2] Victor Urbantschitsch, Zur Lehre von der Schallempfindung. Pflüger's Archiv, 1881, Bd. 24, S. 574-595. Also Bd. 27, 1882, S. 436-453.

[3] Hugo Münsterberg. Schwankungen der Aufmerksamkeit. Beiträge zur Experimentellen Psychologie. Mohr, Freiburg, Heft 2, 1889-92. S. 69-124.

[4] Nicolai Lange, Beiträge zur Theorie der sinnliche Aufmerksamkeit und der activen Apperception. Wundt's Phil. Studien, 1888. Bd. 4, S. 390-422.

[5] Hugo Eckener, Untersuchungen über die Schwankungen der Auffassung minimaler Sinnesreize. Wundt's Phil. Studien, 1892, Bd. 8, S. 343-387.

[6] Edward Pace, Zur Frage der Schwankungen der Aufmerksamkeit. Wundt's Phil. Studien, 1893. Bd. 8, S. 388-402.

[7] W. Heinrich, Die Aufmerksamkeit und die Funktion der Sinnesorgane. Zeitsch. für Psychol. und Physiol. der Sinnesorgane, 1896. Bd. 9, S. 342-388.

[8] V. Estel. Neue Versuche über den Zeitsinn. Wundt's Phil. Studien. 1885. Bd. 2, S. 37-65.

[9] Richard Glass, Kritisches und Experimentelles über den Zeitsinn. Wundt's Philosophische Studien, 1888, Bd. 4, S. 423-456.

Van Biervliet[1] shows that reaction times for sight and hearing diminish with rapidity of pulse. The most unfavorable phase of respiration of minimal sensations is when the blood pressure is least and when brain energy is most drawn off by innervating the respiratory muscles. We know that brain volume changes with work, and even the position of the hair affects the brain-pulse curve. Stern found in brain lesion regular variations which coincide with a slight increase and decrease of sensation. The most favorable variation time seems to be from 2 to $2\frac{3}{5}$ seconds.

School arithmetic has been greatly simplified in recent years by dropping or minimizing such topics as duodecimals, least common denominator and multiple, compound and complex fractions, circulating decimals, equation of partial payments, compound proportion and interest, tables of weights and measures not in use, while geometric and algebraic concepts and processes are introduced gradually at various points, perhaps as arithmetical devices and short cuts, rather than as a new independent department. In this way all are seen as integral parts of a whole dealing with continuous and concrete quantities and their symbols. Geometry and algebra thus glide in first as subsidiary and auxiliary processes of arithmetic and seem integral with it.

There are two needs in this field, so great that they might almost be laid upon the psychologists and pedagogues of the country. The first is an adequate psychology of number, which does not yet exist, and the second is its application in the form of a new dispensation of our work in arithmetic. To these perhaps a third might be added, viz., a postponement of perhaps two years before figuring is begun in the grades, and then it should be taught for a few years with great intensity. As to the first, we have now a mass of observations upon the development of the sense of number in the race,[2] and also a mass of interesting observations upon children (partly correlated in Phillips's article, *op. cit.*), and thirdly, observations in which the number sense is treated in an incidental way from many points of view in the psychological laboratory, of which a few samples have been given above. These data have never been correlated, and until this work is done practical pedagogy will remain in its present groping and uncertain state. The philosophy of number has been abundantly treated in a speculative way from Pythagoras to Dewey, but its psychology, which is the only sure and firm basis for its educational manipulation, remains to be wrought out.

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[1] J. J. Van Biervliet, Ueber den Einfluss der Geschwindigkeit des Pulses auf die Zeitdauer der Reactionszeit bei Schalleindrücken. Wundt's Philosophische Studien, 1894. Bd. 10, S. 160-167. Also Bd. 11, S. 125-134.

[2] For which Levi Leonard Conant's book The Number Concept; Its Origin and Development, N. Y., The Macmillan Co., 1896, 218 p., might be used as a starting point.

Phillips found very marked likes and dislikes, not merely to numbers but to mathematical processes, so well developed as often to be an important factor in success or failure in the study. Nearly all like interest, and most dislike stocks and bonds. The majority seem to like mensuration.. Eye geometry is rare. The prevailing reason given for likes and dislikes is "useful" or "no use." Phillips found, too, that in the fourth grade long division was unpopular, and the greatest common denominator was still more so, but fractions were worst of all, while addition was liked and multiplication was a close second. Many liked the mechanical parts and a few liked decimal fractions. In the fifth grade the greatest common denominator was the most unpopular, and the least common multiple seems to be a close second. Seven and nine give most trouble, and Roman numerals are unpopular. Mistakes seem very often most common in subtraction, and next in multiplication. Many mistakes are hard to trace to their cause, but they are amazingly common in the four ground processes, even in the seventh and eighth grades.

Dr. J. W. A. Young, who represents a unique department of the pedagogy of mathematics in Chicago, has not only written an admirable treatise,[1] but has made the most careful study yet reported in English on German methods. The pupils in the room are all present and rise when the teacher enters, till he bids them sit, and are addressed by the familiar "*du*" till *Ober Tertia.* Home and book work are very minor features, and serve only to fix what has been learned or to give practice. Class work leads and the teacher is the source. "What does the book say?" is a question never raised in a German school. The method is Socratic and all is done by skillful questioning. The teacher's voice and those of the pupils are incessantly heard. Work is divided into easy but very sequential steps, and the teacher seems to work as if for the slowest pupils. Boys of thirteen demonstrate the Pythagorean theorem with no figure. Work in concert is effected in the *diarium* or exercise book. From the first, the pupil must read distinctly what and as he writes, to unite the three activities of performing the operation, describing it orally, and recording it in symbols. There is no algebra till *Unter Tertia.* The manner of the teacher, who is always a man, is "of military sharpness, though not unkind." Routine directions are given with snap and precision and are met with military promptness and unanimity. Instruction is arranged so that a class passes through the hands of as few different instructors as is practicable, and the older teachers in the upper grades oversee the younger in the lower. On the desk of each classroom lies a large bound book, one page of which is given to each day's work, with four columns for absentees, remarks, records of the hours' work, and assignments. The pages are ruled horizontally for hours. Days on which home work are required are fixed for each topic. The *Primus* or first boy fills out most of this book and the teacher does the rest, making remarks very freely for each boy; e. g., A. caused disturbance, B. was thoughtless and distracted, D. was given an hour in the *Karzer* for lying. The amount of home work in mathematics, Young estimates as much less than twice that required per day in this country. There are no study hours for pupils at schools, but they are doing class work all the time. A ministerial rescript requires some text-book in mathematics, the choice of which may be made by local authorities from a list approved by the Minister or Provisional Board, but authorities are very slow to place new books on this approved list. Good teachers, however, still neglect books, and Young neither saw nor heard allusions to any during his visits and was told that the approved text "was sometimes not alluded to in class work for months at a time." The point is to follow the development of the subject. The text-book is used only to avoid the pupils' loss of time by copying and is usually skeletal and never attempts, like ours, a complete body of instruction. Examinations for promotion are annual and oral, at the discretion of the director. The *Abschlussprüfung* at the end of *Unter Secunda* is very important, because to pass it means the reduction of military service. Questions are prepared by the teacher, but approved by the director, and often in the presence of a royal commissioner. The written examination in mathematics occupies four hours. The leaving or *reife* examination at the end of the gymnasial course is given to such as apply three months in advance and has four predicates, very good, good, satisfactory, and unsatisfactory. Doubtful pupils may be examined again. All errors are carefully corrected in red ink. Each school publishes its annual program, which contains the curriculum and a scientific paper by a school officer. In a recent year there were 670 such papers in all Germany, the number of institutions being 993.

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[1] The Teaching of Mathematics in the Elementary and Secondary School. N. Y., Longmans, Green & Co., 1907. 351 p.

Prof. Simon Newcomb[1] advocates supplementing arithmetical work at every stage for children with visible and graphic methods. He would begin by having a square of dots, ten on a side, and would have dots constantly named and grouped in simple mathematical forms, counting by rows and patterns in a way to involve the simple processes. Along with this should go the use of grains of corn, with which not only addition and subtraction but multiplication and division may be done. Fractions, too, are best introduced by dividing a line into parts in connection with multiplication and division. Then should come ratio and proportion, begun by drawing a pair of lines of unequal lengths and other pairs longer and shorter that stand in the same ratio to each other. There need be no measurement at first. This should, of course, be more or less auxiliary. A good and well-graduated foot rule evokes about all the elementary arithmetical powers. A new course in arithmetic should be developed on this line, and he concludes by reminding us that the scientific investigator is a new species only four centuries old and that it is within the power of education to make as great a revolution among the masses as science has among the *élite*.

G. W. Myers[2] thinks that the chief purpose of teaching mathematics should be to give clear images, clear, sound, connected, concentrated and independent powers of thinking, of making inferences, judging, exercising the power to choose, and strengthening the will. He goes on to develop in some detail how he believes these qualities can be developed. He would have the methods in this subject teach the pupil to know where to begin, how to economize figures and time, and thus give a model way of attacking problems in daily life. He suggests that it gives "spot-cash ideas of business."

B. Krishnamachari[3] gives a continued interesting series of articles to show how vicious is the distinction usually drawn between the different parts of mathematics in its elementary stages, how teachers persistently neglect the fact that the algebraic or other methods are often simpler and more elegant than those of arithmetic and geometry. This view he believes to be bigoted, harmful, pernicious for any advance. Many things in arithmetic he believes are utterly unintelligible without the aid of algebra and often are only a translation or expansion of the algebraic method. He holds that the prevalent notion that the student's mind is too immature to call a cow "C" and a sheep "S," is due to profound ignorance of the psychology of childhood. What is necessary is to remove the lines of demarcation between arithmetic and algebra, at least after the third form. No teacher of elementary mathematics should feel his work ended until the pupils have understood every step in the solution. This involves, to be sure, a great deal, for, as usually taught, all mathematics above the most elementary processes consist in learning and following rules for grinding out results. The reasons for these processes are sometimes hardly better understood than if they were ground out by a reckoning machine.

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[1] The Teaching of Arithmetic. N. E. A., 1906. p. 86.

[2] The Deeper and the Richer Meanings of Mathematical Teaching in Elementary Schools. Elementary School Teacher, Jan., 1908, Vol. 8, pp. 310-315.

[3] The Educational Review (India), June, 1910, Vol. 16, No. 6.

J. J. Schobinger[1] does not find that secondary mathematics generally interest or awaken love of the subject. The reason is that the teacher has gone but little farther than the student, the recitation method of assignment and hearing the lessons, the fact that the high school usually takes algebra, then plane geometry, then algebra again, finding that the student has forgotten in the interval most of his algebra. There is also too much mechanical work. It is hard to keep in mind what the letters in algebra stand for; too much time is spent in complicated fractions and in factoring expressions of more than four terms. Physics is the best subject with which to correlate mathematics. Geometry should be freed as far as possible from the purely logical deductive method. It was an art long before it was a science. We are still too much under the influence of Euclid and neglect construction problems. The graph should be stressed, although it is a new topic in this field. It is the best of all substitutes for the replacing of the notion of an unknown quantity by that of a variable quantity, the latter being far less barren. The graph expresses functionalized and various forms of equations, vivifies interest, and gives meaning to many algebraic expressions.

T. Brookman,[2] who for years initiated high-school freshmen into elementary mathematics, found that less than one fifth continued the subject in their third year, and raised the question whether one year's training in this topic justifies itself for those who do not go on, and whether they gained any sense of power. Here we face the ever-recurring question of what to omit and to insert. The Pratt Institute has dropped traditional methods and teaches advanced mathematics, even into calculus, practically and constructively, in ways helpful in laboratory, shop, etc. We are not yet clear what mathematics should be given to those who neither enter college nor take a trade requiring it. Are we right in prescribing one year of algebra and one of geometry to all sorts and conditions of men and women? In this country we have made little progress in correlating algebra, geometry, and trigonometry into a single unit, as in the Lincoln, Neb., high school, where pupils are required to even invent problems. Only those with marked ability are encouraged to enter this course, which need not all be in words of one syllable. He also[1] urges that most who enter high school study algebra but one year, and do not learn how to make even its elementary applications. The textbooks emphasize abstract rather than practical mathematics. The ideals of training for practical work and thinking clearly and effectively are not approximated either in the choice of subject-matter or its presentation. The current failure in teaching first-year algebra is due to the power of tradition, the remoteness of the theme from practical matters, lack of preparation of teachers, since large cities do not always demand experience and college entrance boards are supposed to excuse them from improving present conditions. The problem really should be solved by revising the code of ideals to be striven for, also material and method, and demanding better preparation and closer coöperation with authorities in order to secure constructive supervision.

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[1] On the Teaching of Secondary Mathematics. School Rev., Jan., 1907, Vol. 15, pp. 83-94.

[2] High-school Mathematics. School Review, Jan., 1910, Vol. 18, pp. 20-28.

There is a growing sense of something wrong in our high-school algebra, says H. E. Slaught.[2] It is variously ascribed to overcrowding, wrong emphasis, bad methods, and there is increasing dissatisfaction with the requirements of the College Entrance Board. Some think adeptness in demonstration of principles is the goal, others the development of skill in statement and solution of real problems. This, with the great advance in mental development of pupils entering the high school and the diversity of topics stressed, all contribute to the confusion. Slaught would have the treatment of the equation the central theme and the solution of problems the main objects of the course, and the whole theory and practice of algebra built around this center. In this way he believes a first year's course may be developed that will meet the demands of all. The principles of algebra must grow out of the problem situation or as a practical extension of the principles of arithmetic already in hand. Each problem must lead to a principle which will introduce another. Thus, the problems must be carefully grouped and must be sensible, practical, leading to answers worth knowing. This would teach the boy not only to see a reason for specific things, but for algebra itself. It is always surprising to teachers of modern methods to find how very little used are algebraic forms in solving problems. This is because the gymnastic or disciplinary principle has led us astray from applications. Happily, there are now an increasing number of schools that have broken with tradition and are working out courses in mathematics infusing algebra and geometry and arithmetic into each other in a wholesome way.

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[1] First-year High-school Mathematics, its Defects and Remedies. Teachers College Record, March, 1909, Vol. 10, pp. 146-162.

[2] School Review, Oct., 1908, Vol. 16, pp. 503–516. What Should Be Emphasized and What Omitted in the High-School Course in Algebra?

A. O'Leary[1] admits that algebra is beset with grave difficulties which often date from the very first lesson. It requires, therefore, the greatest enthusiasm and zeal on the part of the teacher, but if this exists, mathematics has a wonderful power of stimulating the intellect and is perhaps more closely connected than we think with the moral life. This, at least, was emphasized by one of the speakers in the Moral Congress.

H. J. Chase[2] succeeded in teaching the essentials of plane geometry in an elementary school in a course lasting only four months and with great and growing interest on the part of the children. He did this by requiring the constant use of the ruler and compasses, so that by the application of these the children caught the essentials of geometry, although they were not able to give finished demonstrations. Thus they found, for instance, that all the angles of a triangle equal two right angles by a measurement, and all the rest by actual measurement. To the question "Why?" in mathematics, he says, no man can answer. "It never was done" is no argument why it may not be done.

Newcomb[3] would spend considerable time in developing the fundamental concepts of space, number, and quantity in the very young, and thinks that we are "as a nation behind all other enlightened countries in the cultivation of mathematics" to an almost incredible degree because this has been neglected, and that therefore we have had till recently so few original contributors in this field and mathematical thought has been so foreign to our genius. He then proceeds to emphasize calculus as the bridge into a field which the limitations of our faculties would otherwise forbid us to enter, and thinks this has its own peculiar inspirations. B. F. Brown[4] says that in high schools, "instead of wide-awake faces always on the *qui vive* and constantly on the lookout for new truths, we find a listless, monotonous conduct that would dampen the ardor of the most enthusiastic teacher." Schoch[5] insists that in elementary grades text-books and courses of study are "both in urgent need of revision." Short[1] would begin the subject of correlation by unifying the work in the three upper grades of the grammar school and have them deal with known topics. This he thinks the place to knit together arithmetic, algebra, and geometry, and attempts to show how this can be done. Halsted[2] demands for geometry a preliminary and intuitive course which shall develop further up the lines of Hill's "Geometry for Beginners," Campbell's "Observational Geometry," Hailmann's "Constructive Form Work in Geometry," and Hornbrook's "Concrete Geometry," in order to develop the æsthetic feeling, visualizing power, etc. This preliminary must fit the later rational geometry. Halsted inclines to believe that in this way almost all young people may in a preliminary way become discoverers, although now under our affectation of a rigorous logical system it is almost impossible for any young man to do more than to go over old ground. Such processes as superposition, observations of congruence and symmetry, hypothetical constructions, with plenty of use of graphics and figures, give a preliminary training of the intuitive faculties in this field which geometricians who have entered the field of pedagogy have not sufficiently considered. Dewey[3] takes exception to this view, referring to Moore's "Foundations of Mathematics," which dwells on its evolutionary character as a motive for not separating its branches and thinks that its history also shows that we must not too sharply separate between intuitive and rational geometry. A teacher of geometry ought to have genius, insight, and tact in this intuitive way, and, what is more important, should be psychologist enough to recognize the importance of this faculty. Complete logical rigor is, in fact, an abstraction and an impossibility when we consider it psychologically. If we were to "drop a pretense of logical quality, which only loads us down with an outward and cumbrous apparatus," we should be better off. Logical and psychological are "limits of a continuous movement, rather than opposite forces of independent elements." In point of fact, I would add that the more we analyze mental processes and the more uncertain we become whether imageless thought is possible in any domain, the more stress we are inclined to lay upon the intuitive, tactile, optical, motor geometry, and to believe that very much could be done unconsciously, and therefore without strain, by having constantly before the eye various typical diagrams and allowing it to play over them in revery, calling occasional attention to them. There can be no doubt that the eye itself strongly tends to geometrize if it has figures before it, that there are mathematical drawings that both charm and provoke thought. Indeed, I have come to believe that one reason why a boy is so prone to reach "a certain limit beyond which it seems impossible for him to make any substantial advance" in mathematics[1] is because this "first intention" method is neglected or at least skimped. I would have the walls of every secondary room, and perhaps the upper grades in grammar schools where geometry is taught and even before it is in order, hung with very carefully selected drawings not only of the simple Euclidean figures, but of all kinds of geometrical constructions, including the most complex and intricate. Nor would I confine these drawings to mathematical forms alone, but include a variety of æsthetic and ornamental figures. I believe that a proclivity to space constructions inheres in the very eye muscles and their functions, and that by plenty of exposure, eked out by occasional direct but unsystematic hints and suggestions, geometry and, to some extent, the simpler algebra implied in and connected with it, could be made one of the most fascinating of subjects, and I think that is a wide field over which interest can be generated that will be effective not only throughout academic grades, but will be a motive and inspiration to the highest research. With this preliminary work even the most *ab extra* didactic method will, in spite of itself, really be heuristic.

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[1] Thoughts on the Study of Mathematics. Irish Educational Review, Mar., 1909, Vol. 2, pp. 347–351.

[2] Elem. School Teacher, 1908, Vol. 8, p. 591.

[3] The Teaching of Mathematics. Ed. Rev., Oct., 1892, Vol. 4, pp. 277–286; Vol. 5, p. 332.

[4] Geometry, Mathematics in Secondary Schools. School Rev., May, 1900, Vol. 8, pp. 292–298.

[5] The Need of Elementary Mathematics. Elem. School Teacher, Dec., 1905, Vol. 6, pp. 203–210.

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[1] The Seventh to Tenth Grades a Unit in Mathematics. Elem. School Teacher, Apr., 1909, Vol. 9, pp. 471–475.

[2] The Teaching of Geometry. Ed. Rev., Dec., 1902, Vol. 24, pp. 456–470.

[3] The Psychological and the Logical in Teaching Geometry. Ed. Rev., Apr. 1903, Vol. 25, pp. 387–399.

H. A. Foering[2] thinks the causes of failure of *college students* in mathematics are poor teaching in the schools below, in which the matter is presented in texts. Teachers are not masters of the subject, at their best, only of the text. It would be well if they all could travel every few years and see what was done in their own lines elsewhere. A circular was sent to every good college east of the Mississippi on the basis. The author reports as follows: Less fault is found in proportion with geometry than with algebra. The former is overdone and too much time is devoted to endless theorems. Sometimes the geometrical pictures are bad. As to algebra, failures are due to superficial knowledge of essentials, and even of arithmetical principles such as factoring. Students are launched out in fields which they do not understand, depending upon technical processes; thus they acquire facility of reckoning without knowing anything of algebraic reasoning. Most lack of interest or ability is probably due to bad training in early years. Among eight obvious forms of usefulness in the study of mathematics given by Perry, the only one generally recognized by teachers is that of passing examinations. Again, the long summer vacation allows most that has been taught to lapse.

The laboratory method would abolish watertight compartments between arithmetic, geometry, algebra, and trigonometry, and no longer teach them tandem, but abreast, with incessant correlation, modulating incessantly from one to the other. Perry in England, Tannery in France, Crystal in Germany started, or at least represent, this movement, which was, with little appreciation of the scope it has since assumed, faintly advocated here by the Committee of Ten in 1893 and by that of Fifteen in 1897. This movement has been made more specific and concrete by several associations of special teachers since 1900. After stressing the use of physics in the mathematical syllabi, Perry pronounced the methods of teaching these subjects in use throughout the world to-day "utterly unscientific," and adds, "I dare not venture to express my feelings as to the effects which would be produced on the whole world by a reform in the teaching of mathematics."[1]

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[1] See Essays on Secondary Education by various contributors, ed. by Christopher Cookson. Oxford, Clarendon press, 1898. 103 p.

[2] Some Causes Contributing to the Failure of Students in College Mathematics. Educ., Nov., 1906, Vol. 27, pp. 143–149.

The movement of reform in teaching mathematics[2] is international, as is suggested by a commission to investigate the subject, under the control of the International Congress of Mathematicians, which met in Rome, April, 1909. It reported later at Cologne, and the investigation is to begin immediately and to be made by mathematical and educational societies, and at the Congress of Mathematicians in Cambridge, England, 1912, the work of the commissioners is likely to be reported. Some of the preliminary reports are indeed already in print.[3] The scope of the work is from primary schools to universities, and includes methods, matter, preparation of teachers, laboratory methods, correlation, application, with a view also to show tendencies. It is not proposed to establish programs adapted to all countries, but to suggest general principles to inspire teachers. Here the N. E. A. attacked this problem as early as 1892 in a committee of ten or fifteen, and the Perry movement in England seeks to make mathematics more useful and practical. The French curriculum has been revised, while in Austria and Germany reform committees are numerous. This is part of the great movement to harmonize the work of the schools, which extends to English, geography, and all the rest, with a view not simply to make school work correspond to that of adults, but to vitalize instruction by using material real to the child at his stage of development. Education is life, not preparation for it. And thus there is no real distinction between cultural and utilitarian aims. "A rational child study leads in all the work to mathematical problems which effect a correlation between nature study, geography, history, and mathematics." The difficulties with the correlation are not yet clear. The attempt to adapt the work to the child is so far very slight. The committees of both ten and fifteen advised abridging arithmetic and earlier use of algebra. They would discard compound proportion, square and cube root, and much commercial arithmetic, cutting out complicated exercises and trying to stimulate mathematical thinking. Hard and fast programs for number work are vanishing. Series of problems on milk supplies, school gardens, distance in blocks, family expense, census tables, railroad, water roads, local industries, can be adapted. Examiners will no more require solution by arithmetic and not by algebra. To teach geometry and algebra means to emphasize mathematical reasoning, and trigonometry in connection with related theorems in geometry also helps correlation. The task of this committee is a great one, but the ground is prepared and its final report is awaited with enthusiasm.

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[1] Discussion on the Teaching of Mathematics which took place on Sept. 14th, at a joint meeting of two sections: Section A.—Mathematics and Physics; Section L.—Education (of the British Association for the Advancement of Science). Ed. by John Perry. N. Y., Macmillan, 1902. 123 p.

[2] L. C. Karpinski, Reform in the Teaching of Mathematics. The School Review, April, 1909, Vol. 17, pp. 267–271.

[3] International Commission on the Teaching of Mathematics.—Bulletins of the Am. Commissioners, No. 3.—Provisional Report of the Sub-Committee on the Preparation of Instructors for Colleges and Universities.—Bull. Am. Math. Society, Vol. 17, No. 2, Nov., 1910.

German school teachers and professors of mathematics have for many years been keenly alert to the defects in the teaching of mathematics of all grades. This discontent found many expressions early in the present decade and led finally to the formation of a very comprehensive international committee, under the presidency of Prof. Felix Klein, of Göttingen, which already for about six years has been collecting data and formulating plans looking toward reform.[1] It is too soon to characterize the work of this committee, for the reports here cited are only the first fruits of its work. Sufficeth to say that it aims at a rather radical reconstruction of all grades of work, with large committees on kindergarten, folk, normal, technical, gymnasial, and university courses. It attempts to teach mathematics as a whole and to more or less ignore the distinctions between arithmetic, algebra, geometry, trigonometry, calculus, etc. It has a strong branch in this country with scores of members, and has up to date published two bulletins describing the scope of the work contemplated and giving the names of the various committees, some of which have already begun their work. The American branch is beginning by circulating comprehensive *questionnaire* inquiries as to how mathematics is taught at present. It is hoped that we may thus eventually have a new dispensation in this subject.

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[1] For the best literature already produced upon this subject see Ueber eine zeitgemässe Umgestaltung des mathematischen Unterrichts an den höheren Schulen, von F. Klein. Leipzig, Teubner, 1904. 82 p. Reformvorschläge für den mathematischen und naturwissenschaftlichen Unterricht, von A. Gutzmer. Leipzig, Teubner, 1905. 48 p. Vorträge über den mathematischen Unterricht an den höheren Schulen, von F. Klein und R. Schimmack. Teil I. Leipzig, Teubner, 1907. Ueber angewandte Mathematik und Physik in ihrer Bedeutung für den Unterricht an den höheren Schulen; gesammelt von F. Klein und E. Riecke. Leipzig, Teubner, 1900. 252 p. Neue Beiträge zur Frage des mathematischen und physikalischen Unterrichts an den höheren Schulen; hrsg. von F. Klein und E. Riecke. Leipzig, Teubner, 1904. 198 p. Die Mathematik in den physikalischen Lehrbüchern, von H. E. Timerding. Leipzig, Teubner, 1910. 112 p. Der mathematische Unterricht an den deutschen Mittleren Fachschulen der Maschinenindustrie, von Heinrich Grünbaum. Leipzig, Teubner, 1910. 99 p.

P. Bode[1] describes the recent propositions in Germany for a reform in the methods of teaching mathematics and physics with special reference to the gymnasium. It appears that there are no less than sixteen educational societies that have advocated the reform through their committees. The most important of these were the propositions of Meran, which insist that neither the linguistic-historic nor the mathematical-scientific shall predominate, and holds each of equal value, advocating what has become a slogan in Germany, specific general culture. There must be absolute equality in the culture work and privileges of real-school and gymnasium. In the humanistic gymnasia one hour more of mathematics is commanded for both *Tertia* years, for *Ober-Tertia* an hour more of natural science, and for the upper classes an hour more of physics and optional experiments. The number, therefore, of the obligatory hours from lower *Tertia* up is limited to a minimum of thirty-one. The end of mathematical instruction is to give a more scientific survey and coördination in the material of the curriculum, also to assure a certain facility in mathematical thought and its application to special problems, but above all to see the significance of mathematics for the exact sciences. In order to secure this end special types of thinking must be emphasized and the pupil must be habituated to "functional thought." Difficulty is a function of time. Graphic presentation must become habitual. Geometrical instruction should begin in the closest rapport with the knowledge of nature. For physics, the committee lay down three principles. First, physics is not to be taught as a mathematical science, but as natural history. The teacher must begin with things happening all about and seek to give the pupil a better understanding of them. Physics must not be one-sidedly mathematical, nor must it chiefly consist in demonstration of brilliant experiments. The second principle is that the instruction must be so imparted as to be a model for teaching all experimental scientific knowledge. The pedagogy here is chiefly heuristic. Pupils in these subjects are often charged with not knowing enough of natural objects and phenomena, and to remove this reproach they must not only see but make experiments. From this follows the third proposition, that systematic exercises involving personal observation and experiment must be inaugurated.

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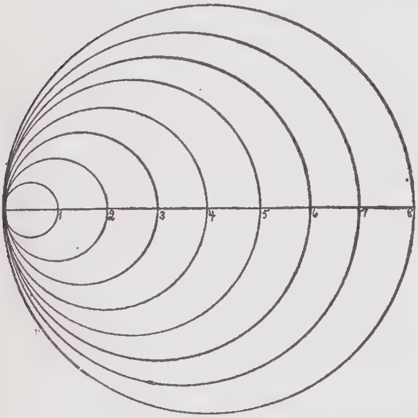
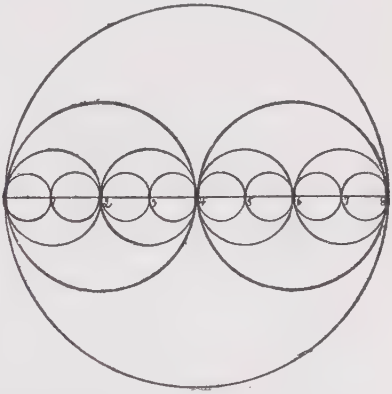
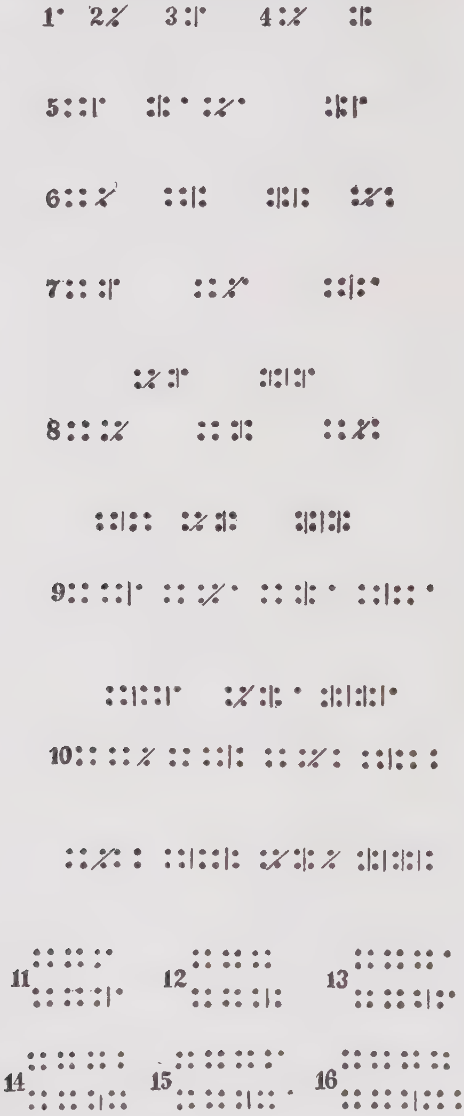
[1] In das humanistische Gymnasium, 1909. Heft 2 & 3. See Geissler. Die Erklärungsbegriffe der heutigen Naturlehre, verglichen mit den mathematischen Grundbegriffen. Deutsche Schule, 1907. Vol. 11, pp. 500–509. Die Entwickelung des Funktionsbegriffes und die Pflege des funktionalen Denkens im Mathematikunterricht unserer höheren Schulen, von Quossek. Zeitschrift für lateinlose höhere Schulen, September, 1907, Vol. 19, pp. 17–18. Die Ergebnisse der Dresdener Tagung des Vereins zur Förderung des Unterrichts in der Mathematik und der Nationwissenschaften von O. Presler, *ibid.*, pp. 42–48.

We may safely conclude that number is a link between time and space depending upon and ever tending to deploy into both. Temporally it represents successive strokes or ictuses of attention, and so is a psychological principle of discrimination and differentiation which divides and demarcates on the one hand, and on the other has a persistent tendency to group its integers rhythmically, making ever higher unities out of ones and groups of ones as symbolized in the above figures. Counting is a typical punctuation of the stream of thought, as the tick of a clock cadences the lapse of time. It has its beginning in unity, but no end, for it goes on to infinity, and so is unlike the sentence sense which involves periodicity with ever alternating beginnings and endings. Spatially, its quadratic groupings in horizontal rows of fours may be now





said to be scientifically demonstrated as best, for thus not only is each four grasped as quickly and probably as easily as one,



but by a slight separation of these four painted on the blackboard and their separation by vertical and oblique chalk lines division, subtraction, multiplication, and division can be visualized. Thus the geometrizing instinct of the mind, too, is brought into play from the start by the use also of square figures made of rows of dots with three, four, five, and perhaps more on a side, also by the use of a metric ruler with its higher and subordinate unifications by alignments with geometrical structures, of which the following are a few types. Indeed, by many other ingenious and æsthetic geometrical constructions the arithmetical and geometrical visualizing faculty will no doubt in the future be turned to good account and its great significance will become apparent. Figures inscribing a square in a circle and a circle in a square, verniers, a little exercise with very simple apparatus for geometrical drawing, divided squares and circles marked off in degrees, spirals, ellipses, parabolas, hyperbolas, spheres ruled to show latitude and longitude, and not a few of the Euclidean diagrams solicit the mind to geometrical activity through the eye and prepare the way for more explicit and conscious study by the means of demonstration. Thus, I am convinced by restoring a lost link in the development of the mind we can do very much to prepare the way for mathematics before the time comes for definite instruction in it. There is abundant anthropological evidence that in people far below the stage in which geometry was evolved these figures had great fascination. Then, I would have hung in every schoolroom not only the Lay and other dot groupings, but later a copious and a well-graded series of magic squares, number puzzles, etc., the purpose of which the children might find out if possible for themselves and verify and demonstrate. This cannot fail to generate interest and to impress them with the magic and wonder of number relations themselves.

Thus, a new pocket of interest in pure number relations, which in earlier days constituted one of the chief fascinations for all mathematical amateurs, has been in recent generations almost entirely forgotten in the precipitate haste to seek practical applications. Even most teachers of mathematics know almost nothing of what might be done with these natural resources for developing interest and proficiency in this field which are now going to waste. Although it is im-

1	15	4	14
12	6	9	7
13	3	16	2
8	10	5	11

possible to do justice to them here, I must at least call attention to a few works.[1] Take, e. g., the accompanying magic square, in which the numbers always foot 34, whether one adds horizontally, vertically, or diagonally, and if the whole square be halved vertically and then horizontally and the two halves exchanged, or if the quarters of it be exchanged, the footing is always 34.

Note—The move in this case is two squares up and one to the right. Every fifth move will be found blocked and the figure is then placed in the cell immediately below the preceding figure, e. g., 6 in the cell below 5, 11 below 10, 16 below 15, 21 below 20.

10	18	1	14	22
11	24	7	20	3
17	5	13	21	9
23	6	19	2	15
4	12	25	8	16

The above square, made by a formula based on the knight's move in chess, the square being rolled into a cylinder, possesses not only all the characteristics of the previous one, but if rolled into a vertical or horizontal cylinder and a spiral row of figures traced either right- or left-handed around the cylinders, it will be found that the sum of each spiral equals 65. As there are five right-handed and five left-handed possible spirals in each cylinder, only four of which are diagonals, this gives sixteen new combinations, making a total of 28 columns which foot up 65. Furthermore, the sum of any two numbers which are symmetrical as regards the middle number always equals its double; or in the diabolical square the sum of any two columns of three which cross at right angles symmetrically equal 65; and the corner numbers of each three squares that can be taken out of this five square, as well as in the original square, if added to the central number of the same square, equal 65. The so-called diabolical square not only possesses all these properties, but they remain true for any arrangement of the columns, either horizontal or vertical. The number of magic squares is almost innumerable,[1] and there is hardly less wizardry in magic parallelograms and other combinations. Then again, in very simple processes with numbers, there are almost astounding, at any rate wit-sharpening, marvels, such as the fact that the number 142,857, if multiplied successively by 1, 2, 3, 4, 5, and 6, gives in all cases the same figures in a very regular sequence, and there are scores of no less marvelous cases. Again, there is great arithmetical promise and potency in many games and arrangements of dominoes, also in dice, so that both might be called arithmetical games. So, too, as Herbert Spencer's father insisted with great ingenuity, geometry may be taught very early in a constructive way, as well-chosen

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[1] M. Édouard Lucas. Récréations mathématiques. Paris, Gauthier-Villars, Vols. 1, 1882; 2, 1883; 3, 1893; 4, 1894. Also Édouard Lucas. L'arithmétique amusante. Paris, Gauthier-Villars et Fils, 1895. 266 p. Claude-Gaspar Bachet. Problèmes plaisants et délectables qui se font par les nombres. Paris, Gauthier-Villars, 1884. 242 p. Hermann Schubert, Mathematische Mussestunden. Leipzig, G. J. Göschen, 1900. 3 vols. W. Grosse. Unterhaltende Probleme und Spiele in mathematischer Beleuchtung. Leipzig, Quandt & Händel, 1897. 251 p. W. Ahrens, Mathematische Unterhaltungen und Spiele. Leipzig, B. G. Teubner, 1901. 428 p. L. Mittenzwey. Mathematische Kurzweil. Leipzig, Julius Klinkhardt, 1883. 112 p. F. Latoon. On common and "perfect" magic squares. London, W. Reeves, 1895. 139 p. Flatland, a romance of many dimensions. By a Square (Edwin Abbott Abbott). Boston, Roberts Bros., 1885. 155 p. William F. White. A Scrap-book of elementary mathematics. Chicago, The Open Court Pub. Co., 1908. 248 p. Hermann Schubert. Mathematical Essays and recreations. Tr. by Thomas J. McCormack. Chicago, The Open Court Pub. Co., 1898. 149 p. See also the interesting discussions on the magic square in The Monist, Vol. 2, 1891–92, No. 4, pp. 486–511; Vol. 17, 1909, No. 2, pp. 272–310; Vol. 19, 1909, No. 3, pp. 441–459. See also Nature, March 13, 1902, Vol. 65, pp. 447–452; April 3, 1902, Vol. 65, p. 509; May 22, 1902, Vol. 66, p. 78.

Diabolical Square.

1	20	9	23	12
24	13	2	16	10
17	6	25	14	3
15	4	18	7	21
8	22	11	5	19

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[1] As the square can be started from any cell except the central one, which must contain the central number of the series, and there are eight possible knight's moves from each square, there are 192 possible arrangements. Some of these, however, do not give perfect magic squares.

courses in paper folding and cutting are now showing. So, too, well-chosen labyrinths, certain forms of solitaire and other games, especially chess, figures with symmetry, a host of puzzles, like the 15 puzzle, are all stimulants of interest. Well-chosen but very simple apparatus, like the begnenaudier (1550), the tower of Lucas, Napier's rods, play with millimeter paper, simple drawing apparatus, figure tracing, now and then a touch of great problems like squaring the circle, perpetual motion, the relations of the square and triangle to the circle, familiarity with carefully chosen models of enlarged snowflakes and other crystals, elementary mathematical diversions selected from the literature of conjuring and sleight-of-hand—it needs only a competent committee of half the size and giving half the time devoted by the committee of fifteen to extract the best pedagogical material from these, arrange it in natural sequence from easy to hard, in order to make the most important contribution of modern times toward bringing the teaching of the elements of arithmetic and geometry back to their true psychogenetic foundation, for here is to be found the missing link.

Mathematics is often called deductive, as opposed to the inductive sciences, but the former term must not mislead us. All branches of mathematics of themselves are of purely inductive or observational origin. The difference between them and other sciences is simply that mathematical observation is so intuitive and rapid that it early got ahead of all other sciences and was able to formulate a body of conclusions which are now so extensive that they can be applied deductively. In other words, it has become deductive because it is the very ideal type of inductive sciences in its origin. This is the goal toward which every science strives. The child even here naturally repeats the history of the race, but in a far more rapid and effective way than in other domains of thought, and if it has instinct for superposition, which is so important a method in geometry, and if it is allowed to use abacuses, models, compasses, pencils, paper models, and always to be doing something with its hands and intuiting mathematical facts with its eyes, it is repeating the history of the race in the most rapid way, and this is why intuition really lays the foundations for demonstrational methods. Some mathematicians have claimed that proofs should begin at once, because if immediate perceptions took precedence, proofs would seem to be merely amplification of the obvious and would lose their zest, but this point of view can be held only by methodasters.

Our *conclusions,* roughly summarized, would run somewhat as follows: (1) Present methods are wretchedly wasteful and antigenetic in ignoring the chief natural interests and impulses from which mathematics sprung. They are antilogical and crassly syncretic, struggling to catch every present wind of doctrine, however faddy, and trying to unite irreconcilable and even opposite principles. Thus this splendid subject, queen of all exact sciences and the ideal and norm of all careful thinking, is muffed by teachers and hated and scamped by pupils. It is the victim of metaphysical speculations and of every passing philosophical theory. Moreover, not one pedagogue has anywhere even attempted to sum up the copious but scattered anthropological, experimental, pedagogical, psychogenetic, and phylogenetic resources now available in order to determine their bearing upon school practice. Thus, a radical reconstruction is now needed and impending. It is hoped that the large international organization for bettering conditions, which consists chiefly of teachers of high-school and university mathematics, will not ignore the needs of reconstructing its very earliest stages, although these may lie somewhat out of their ken as mathematicians. (2) In arithmetic the number series should be prime and cardinal. The pupil should count forward, backward, skippingly, halve and double, third and treble, square, cube, extract roots, see ratio and proportion wherever it is possible, and thus become familiar with these essential terms, multiply, divide, add, subtract, fractionate—all this by means of and on the number series itself and mentally, as the tyro in piano playing is kept to scales. This work has a natural charm for children at this stage, as is shown in the counting passion and even in extreme cases of arithmomania. Rhythm, finger counting, the individualization of numbers should be made the most of in their season and brought out. Number forms, too, should be studied and utilized as one of the natural psychogenetic bridges between number and geometric relations. This number scale work should be very intensive and should be largely class work, and therefore should be only for very short, if frequent, intervals, and should be maintained from the third to the sixth or seventh grade. (3) Pure number relations should thus be clung to and worked for all they are worth, with no admixture of algebraic or geometric relations at first, and the usual sums applying number to concrete things and measurements should be deferred. (4) Small numbers should, of course, be exhausted, first 10, then 20, then 40, then 100 and more should be the theme of reiterated drill till all that can be done with them is exhausted, and when ciphering comes in it should be very gradual, only with small numbers and restricted to processes and numbers already familiar, and just gone over mentally, that is, ciphering should repeat what has already been done over and over again in the head. The use of large numbers in elementary arithmetic should be branded as a pedagogic outrage and crime, the product of laziness on the teacher's part, the breeder of mechanical and unintelligent methods, as well as of hatred of the whole subject on the part of the student. All abstract rules which take the pupil beyond his depth should come late and be evolved from the processes for mathematics, instead of being *à priori* deductive, is the most inductive of all science, its very primacy consisting in the fact that the inductions from which it rose are so early, so easy, so intuitive and automatic that in this way they are the type and ideal of induction, and this magic can and will always be repeated in the mind of the child if we give it a chance. (5) Every kind of mathematical recreation practicable should be drawn upon. Puzzles for younger, and magic squares, etc., for older children, and for both every sort of aid by the use of things to do and to do with, should be utilized. Rulers of various kinds, compasses and squares for drawing, calibrated measures, weights and scales to weigh with, diagrams, abacuses, dot systems variously composed, dominoes, number cards, counters, elementary reckoning and calculating machines, curiosities from the history of mathematics and perhaps pedagogy, various number tricks used by sleight-of-hand performers—all these things should be gathered as lost arts and devised and would be found useful. These are the material to make number interesting at this stage, rather than its applications or much mensuration. (6) Elementary geometry should come very early, but in the form of manifold curious and enticing appeals to the eye, for optical geometry is a very potent agent in arousing curiosity and interest, and preform the demonstration of geometry, which is to come later. It was such things that originally evoked the process of geometrizing, and the buds and rudiments of this power are big in the child. Hence, mazes, models of many kinds, quaint, curious, ingenious diagrams, wire and solid forms of conic sections, blocks, are things to be not only seen but handled. These should form a part of the armentarium of all the upper grammar grades and referred to occasionally by the teacher, but not yet made the explicit object of instruction. Drawing apparatus, elementary practice in laying off squares, circles, tangents, hypothenuses, compounding figures with freedom, at intervals, to do and make anything and with a great deal of superposition—all this will cultivate a naturally rich and fertile mental soil not unlike that represented in the antique world before Euclid and long before any examinable instruction is possible. Here is a rich phyletic pocket that should be drawn upon. (7) While this intuitional type of geometry should come earlier than now, almost at the beginning of arithmetic, algebraic elements should come much later than pedagogues or mathematicians now advise, for they are hard because abstract. Elementary algebra is often the teacher's pet, because he has his pupils out of their depth and at his mercy, and in no domain must what he can tell or direct be accepted so implicitly, because the pupil does not know enough to reason why, but goes on under dictation with what to most is only parrot or monkey trick work, and which is therefore lost as soon as the exigencies of school tests are passed. (8) When, after its many inevitable prelusions, glimpses, and snatches, the time for applied arithmetic comes, it, too, should be intensive and should bring the pupil into vital touch with actual business, carpentering, keeping of accounts and books in firms, bank methods, the modes of reckoning used by accountants to-day. All these should be carefully wrought out by and with the coöperation of business men and bookkeepers, who should be consulted and brought, if possible, into the class to tell what kind of proficiency their houses seek in boys whom they employ. Our school arithmetics are antiquated in such matters as computing interest, footing and balancing accounts, etc., and this disparity should be remedied. At this stage, commerce and trade as they are now operated should come very close to the pupil. (9) Mathematical teaching should be more of a specialty, beginning with the third grade up, because nowhere in the whole curriculum can so much time and effort be saved. Children need but very little time a day if it is rightly directed. Experts might go from room to room and possibly from schoolhouse to schoolhouse. There also should be a special committee, composed of teachers and genetic psychologists, to care for elementary work in this subject alone, to apply what is known and point out what else needs investigation and settlement for the final reconstruction. (10) For a course in high school and college only mathematicians can decide, and their claims for the unity of all mathematical subjects are unquestionably valid and will dominate above the lower grades. There is danger, however, that in this work the claims of beginners may be unsatisfactorily dealt with.

CHAPTER XIX

PEDAGOGY OF READING: HOW AND WHAT?

The two general methods of teaching reading—Pedagogical variants and fantastic devices—Phonic methods—Writing as an aid in teaching reading—The practical method of teaching as derived from accumulated experience—Pedagogical results of psychological investigations on the mechanics of reading—Eye strain—Psychological laboratory experiments—Spelling; spelling reform in various countries—Artificial or universal languages—Graphology—Composition writing—Illiteracy—Irrationality of the mechanical process of reading—Value of all devices that lessen eye strain and simplify the mechanical process—What constitutes true reading—What to read; investigations of what children do read; what they should read—Needs in this field—The *Jugendschriften-Warte* and the work of the German association for the selection of children's literature—Relation of the psychogenetic theory to pedagogy of reading—The function of reading as Aristotelian Catharsis—Self-pedagogy in reading.

How.—There are two methods in teaching the art of reading: viz., the *synthetic*, which proceeds from letters or sounds to words, sentences, etc.; and the *analytic*, which begins with pictures, words, or sentences, and descends to visual or vocal elements. So long and so far as letters were named from real or fancied resemblances between the form of the letters and objects, the process of naming them no doubt facilitated learning, much as to call our large *A* a harrow, *B* an ox-yoke, etc., would now do. This device, or even if a novice in Hebrew were to remember that *mem* is water, *aleph* an ox, *nun* a fish, etc., would be especially helpful in writing, which in modern methods often comes as a very early stage of language-teaching, and where a distinct name is helpful for each sign. Just when or by whom the school device of telling off the independent names of letters as a key to the spoken word (or spelling) was hit upon is unknown. Of course, d-o-g really " spells " *deogee*, and not *dog*, any more than *delta, omicron, gamma,* does. Arbitrary in itself, spelling has naturally associated itself with harsh methods of teaching. An old poem tells of a teacher and a pupil who undertook to settle the spelling of a word by a fight, in which the teacher was killed; and a Greek comedian, Kallias, wrote a letter tragedy. Yet the method had almost universal currency, despite much opposition and ridicule, down to the Reformation, and in most non-Teutonic lands still maintains its supremacy.

Many unique primer methods have been devised in Europe to modify or reform the *spelling* method, beginning as early as 1534 with Ickelsamer's device of placing the picture of an animal, its printed name, and the letter whose sound was most like the animal's voice or cry, in parallel columns. Against the picture of a dog, e. g., was placed the "growling" *r*. Against a bird, the "twittering" *z;* with a lamb, *a*, etc. The children must analyze the word phonetically, and before they saw them draw the sounds upon the board. The later, but more widely current, method of associating *a* with apple, *b* with boy, etc., was supplemented by utilizing the lingering final sound, and teaching *b* with tub, *t* with rat, etc. Another *interjectional*-imitative method, suggested by Neuman in 1832, and lately modified and psychologically defended by Oehlwein, places beside the letter *m* a cow just beginning to low; with *r*, a rapidly moving post wagon and the winding of a clock are pictured; with *a*, a crying baby and a crow; with *o*, a falling snow man, and the children exclaiming, Oh! with *f*, a smith at his bellows, the sound of which the children may imitate; with *sch*, children driving away hens, etc. By another method, red letters were printed on blackboard and slate, to be exactly covered by the children's chalk and pencil. In Basedow's[1] great work (1774) describing the methods of his institution, reading, like everything else, was sugar-coated and made play. In the pronunciation games, the children spoke the names of all the pleasant things they could think of, as apples, sugar, raisins, candy, nuts, etc. In the game of lettered cards the parent or teacher played, e. g., *a;* and if a letter that could be pronounced with it as a syllable, e. g., *b*, was played by the child, who said *ab*, it could, as a reward, bite an apple, see a picture, smell a flower, etc. In his school bakery, sweet cakes, and even bread, were baked in the form of letters, and the most doltish child soon learned to call for a large gingerbread *w* instead of the small *i*, and usually graduated from an alphabet diet of four weeks as an accomplished *a-b-c-darian*. There were alphabet blocks, alphabet songs, dolls, pictures, rhymes, games, etc. By some of the philanthropists, boys were taught *w* by *twisting their bodies* into something like its shape, and crying *woe;* they personated *f* by dressing in helmet, big necktie, and stilts; or *s*, by putting on an artificial hump and big belly, etc. Pestalozzi taught his classes to spell long lists of words by heart before they saw the letters; and then, showing the letters, had them combined in every way, somewhat after the fashion of "the house that Jack built"; while some of his followers degenerated to exercises in pronouncing senseless combinations of forty or fifty letters each. A leading, though by no means the only, motive of these and many other methods which might be cited, was to reduce the function of the letter-name, or defer it to a later stage in learning to read. Although the letter-name was once defended, because mechanical, the pedagogic rage against its chief use in spelling has run very high in Germany. C. Kehr[1] says it has caused children ages of misery. Heinicke says it required thousands of superfluous associations, and that no child ever did really learn to read by it; but, when seeming to have done so, has in fact unconsciously translated names into phonic signs; that spelling is a child-torture greater than the Inquisition, etc. Some German writers asserted that most children did not need to learn to read, not for the reasons Rousseau said Émile need not read till fifteen, although he would, if or because not forced to it, at ten, but because between the greatly magnified hardship of old and the fantastic nature of new methods, ignorance seemed preferable. Jütting lately stated that no one, except an anonymous newspaper writer, had seriously defended spelling as a method of teaching reading for fifty years in Germany. It was forbidden by law in Prussia in 1872, and several states have since followed.

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[1] See the admirable new edition of his Elementarwerk by Th. Fritzsch, Leipzig, Wiegandt; 2 vols., 1909, pp. 543 and 576, with a third volume of his famous pictures made for him by Chodowieckis, designed to represent the elements of every human interest. One of the most unique and interesting and belabored products of pedagogic ingenuity.

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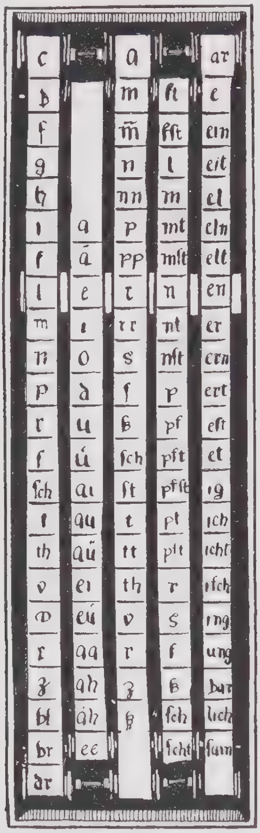
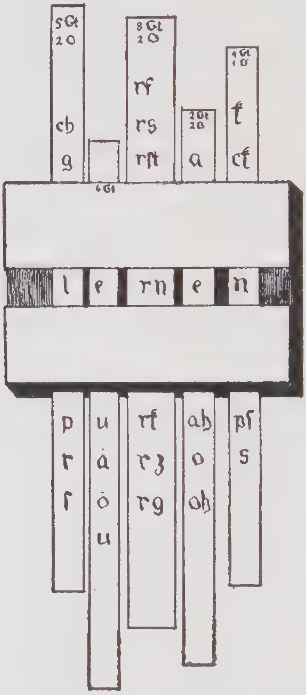
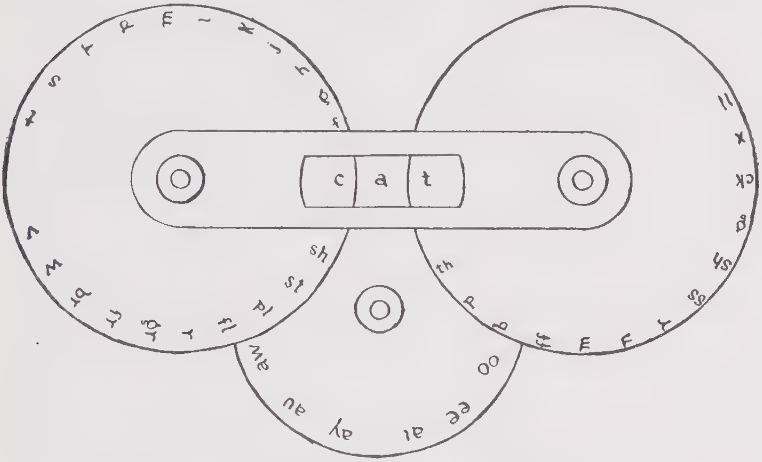
[1] See his valuable book entitled "Der deutsche Sprachunterricht im ersten Schuljahre nach seiner historischen Entwickelung und in theoretischpraktischer Darstellung." Gotha, Thienemann, 1877, 211 p. Also his two large volumes, Geschichte der Methodik des deutschen Volksschulunterricht, 1877. Also, Adolph Klauwell, Das erste Schuljahr. Leipzig, Klinkhardt, 1878, 219 p. Also, Oswald Förster, Das erste Schuljahr. Leipzig, 1882, 276 p. Also, G. W. Rein, Theorie und Praxis des Volksschulunterrichts nach Herbartischen Grundsätzen. I., II., und III. Schuljahr. Dresden, Bleyl, 1884–9. See other literature on this part of the subject in my Bibliography of Education.



Vorderansicht der Pöhlmannischen Lesemaschine (1814).



The second less purely synthetic method of teaching language is the phonic, which crops out in several of the above schemes, and which began to be seriously advocated near the beginning of the present century. Most of the early phonicists sought to develop a sort of " mouth-consciousness " by more or less elaborated drills in vocal positions, some of them almost at the outset, classifying sounds according to the vocal organs which produced them, or the place against which they were projected in the mouth, or the impressions made on the ear—blowing, cracking, hissing, etc. When asked, e. g., how the sound of *th* in *this* arose, the children described the position of lips, teeth, and tongue, and were then told that the name of the sound was the lingual-dental-hisser, as *th* in *that* was the lingual-dental-hummer, etc. Some "leographological" systems were rounded out to such complete fullness that combinations like *gnirlps, lmscht, lpsts* were introduced. Olivier's analysis elementarized with such subtlety that instead of twenty-six letters about four hundred sounds were produced,



starting from a vowel basis and differentiating to the more dependent consonants. New systems of script, most of which dispensed with silent letters, and reading machines of several patterns, beginning with the *Pöhlmann* and others, as above, came into use. Graser taught the fantastic doctrine that the letters of the German printed alphabet were pictures of the position of the vocal organs in pronouncing them. In the case of *o* this is obvious; but, however, the letters were tipped and their form modified, however ludicrous faces the teacher made, and however arbitrarily the form was sought in lips, tongue, or fauces, wherever the analogy seemed most favored, it was in most cases too preposterous, even for the pedagogic passion for novelties which then was so prone to identify the new and the good, and which has always, and preëminently in all departments of the reading question, admitted crude trialette schemes unguaranteed into the schoolroom. It certainly has almost none of the merit, even in this respect, of the admirable system of Melville Bell.

Of course much sport was made of these sounds which, if separated as widely as was usual, were as meaningless and irrational as letter-names. To some they seemed only ludicrous, to others an insult to and a mutilation of human speech "so brutish that, beside them, the natural noises of animals were divine." The extreme systematizers had several schemes of grading, and a few have insisted that all sounds must be learned before any were combined. Even the petty variation of an inverted alphabet was trumpeted as a new method. The phonic method, however, as more sanely and commonly applied, especially with the analytic stage of dissecting sounds from a wisely devised set of normal words, constitutes an invaluable addition to the repertory of pedagogic devices. Spelling is for the eye and hand rather than for the ear, and consists in describing, with convenient technical nomenclature, the details of the word-picture, and in teaching the eye and hand their part in the complete process of read-writing, and is one of the best and most labor-saving devices which it is folly to dispense with, however late in the process we may place it. For training mouth and ear to their part in the process, the phonic device is no less serviceable and no less psychological. Both should be used in teaching reading, and there should be no more conflict or rivalry between them than between reading and speaking, or at least between silent and oral reading. Children love to put audible into visible signs, and, for a child with a vivid visual and a feeble auditory memory, it eases the strains of ordering tones in a series to adduce a visible sign. Although spelling is to make the forms of words right, so that we learn to spell by writing, the old oral way often comes in to help out the hand, not so much in suggesting the more familiar printed forms, as in supporting the mind by calling in a new and independent series of impressions to aid through the complex and illogical processes of English orthography. Now that a blunder will not pass as individual taste or an attempt at reform, and compositors are no longer given extra pay to correct the spelling of ladies and gentlemen, and as phonics tend in a sense to make spelling hard, eye and hand are not always enough to insure infallibility in our peculiar tongue.

The name of the letter is no more unlike its phonic value than the written is unlike the spoken word, or than both are unlike the thing, act, or quality they have come in the different languages to designate. Thus, all linguistic processes for a modern child are in a sense irrational, and for the most part merely conventional and arbitrary. The letter is not a picture of the sound, nor the sound of the thing or act.

For children's minds, however, arbitrary names and associations are far more easy and natural, and the need of systematic completeness of method far less, than is commonly assumed. As, however, man speaks before he reads, phonic training may perhaps precede spelling. It should not be forgotten, of course, that name, sound, and form of letters need to be so early and inseparably associated that each shall instantly suggest the other. That the letter-names and forms are themselves far easier than is commonly thought for bright children has been often illustrated by good pedagogic methods; as, e. g., in the case of Mrs. John Wesley, who, after exciting high expectations and interest, dressed her children in their best clothes, and taught them the alphabet in a day.

Thirdly, as spelling has grown less and later, writing, not as a drill in penmanship or drawing, but to rouse interest in and direct attention to the physiognomy of words, has gradually grown to be an earlier and larger function in teaching language. A very few German teachers have advocated, either in place of, or before, or in connection with, the free use of the ruled slate, drill in the position of the body, hand, and fingers, as exercises preliminary to writing, beginning with large shoulder movements and air-writing, and coming down gradually to finger movements, perhaps in concert or at command, just as during the first few days or weeks of school-life, children must be taught to stand, sit, turn right and left, place hands and feet in various positions, speak in chorus, at call, at bell-taps, hand-signals, counts, etc., as training to habits of prompt obedience. One writer insists that in all of such early graphic exercises the left hand should support the right and train the other cerebral hemisphere by executing mirror-script at the same time.[1] Some—because the pencil gives the habit of twirling, always a stiff, and if hard or short, a heavy hand, clumsy at shading and hair lines; or with Professor Cohen—who because a white mark on a black background is much harder for the eyes than the converse, has invented white slates—would dispense with the slate from the first and begin with the pen, perhaps dry at first. One vagarian finds merit in practice with closed eyes and in the dark, from dictation of the earliest normal words. In place of the single forms of letter as with the early Romans, the Germans have, counting capitals, four written and four printed forms of letters to learn, and of these many schools and primers now begin with the Teutonic form of cursive script, according to what Graser called the "pure write-read method," which is now under discussion for the schools of this country. Cursive script originated as a more rapid, abbreviated and agglutinated kind of writing, and the single letters are too little isolated and individualized for the analyses that must come sooner or later. In Germany reading-machines and script-type, like Ziller's, with exercises in type-setting, partially obviate this difficulty. Printed, and especially capital letters, have more individuality, while their size alone is a great advantage to children whose eye, and particularly whose hand, needs special edcuation in all that is small. The written are farther removed from drawing than the printed letters, and our best chirographists have far less art than the mediæval pen-printers.

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[1] Mirror script was once thought to be pathological, but the recent studies of Buchwald, Vogt, Durand, Niccole, Halipre, Ballet, Meigne, Bernard, Figuera, and last and perhaps best, Laprade (Contribution à l'Étude de l'Écriture en miroir. Paris, Ollier, 190–. 58 p.) seem to indicate that it is normal writing for the left hand. It is rarely seen because it is contrary to the habit of vision which is more and more dominant. Writing, of course, involves different impulsions. The pure motor instinct impels to write mirror script. Vision impels us to write from left to right. We have fallen into the habit of addressing the eye in script. Whenever some pathological cause surprises it then the motor center may undergo some spontaneous obsession or verbal blindness may fail to control movements. So, too, when one is forced to write with the left hand he may abandon himself to mirror script, as he may in cases of aphasic paralysis. Thus we are impelled to write mirror script with the left hand, but do not do so because it could not be read.

Some children enter school with more or less natural knowledge of writing in capital letters which were historically first. Sizes and distances being equal, a simple word, e. g., man, dog, hut, is easier to make as a drawing lesson if written cursively, but is easier to read as distinguished by more definite characteristics from other triliteral words, if printed. Reading cursive and drawing printed words is therefore harder and later. To begin with script has the advantage of launching children into school life with what is absorbing and more likely to be new to all, and on the whole is, no doubt, if wisely methodized, good pedagogic economy. The hand is a great help to tongue, ear, and eye, for what we do sinks deeper than what we see or say or hear, because involving more self-activity. Each process carries and involves the other; but the easiest lingual support to writing—and some support, though at first a little hard, should be early taught, instead of the mechanical and instinctive tongue-chewing, etc.—is innervating in the mouth the letter-name, because the association of manual work with the eye is closer than with the ear, and because the letter-name is uniform and unequivocal for each sign, while many letters have several sounds. The phonic support to writing, if insisted on, may come later.

Whether words are at bottom auditory and visual images, as Meynert, Kussmaul, and other psychologists assume, or not sensory but motor-efferent, as Stricker, Ferrier, Geiger, etc., assert, need not be determined, although the trained introspectors of the psychological laboratory can easily determine what elements predominate in their own cases and find great individual diversity. From the fact that some are made hoarse by hearing oratory, acting, and singing, or that some "think" music and speech in the hand, some in the throat, ear, or eye, etc., we may infer a wide range of individual variations. Not only are these sensory-motor elements incommensurate, but the diseases known as aphasia (loss of control of speech), agraphia (loss of power to write), alexia (loss of power to read), and deafness, with their sub-species, show that the faculties of speaking, writing, reading, and hearing, though so closely associated and mutually supportive, may any one of them be lost by disease, without essentially affecting the integrity of the others. Not to use any one of them is to leave power undeveloped, to go to waste, and to rob us of a natural motor to school-work. To apply them unwisely is to accumulate difficulties, and to leave children to a longer and more disheartening experience of their own inabilities than was before possible, and to "make the invention of reading, Cadmus dragons' teeth indeed, and the pedagogues, the armed cruel men that were the fit crop from such seed." To avoid the greater evils and secure the greatest good now possible through modern methods, teachers need more intelligence and pedagogic training, and more scope for bringing their own individuality and experience to bear, than ever before in the history of education. Even if he were taught reading and writing no sooner than by outgrown methods, a child who has been led judiciously through the phonic, and then the scriptive and spelling courses of training, has had such an experience in overcoming obstacles, and seeing many processes converge to the unity of one result, that though he can *only* read and write he cannot be called uneducated. If he is especially apt in the use of the hand, he learns to read largely by its agency; if chiefly visually-minded, through the eye, etc. If the proportions of the different partial methods are duly adjusted, all doors are knocked at, and all parts of the mind working consiliently.

The accumulated experience of every generation of teachers, though by no means yet entirely accordant, now tends to a practical method which it is possible to sketch in a rough, but brief way. First, objects are presented, natural rather than artificial, if practicable. These the children look at, and especially handle freely, if not already familiar. Only after their natural curiosity has subsided, so as not to interfere with instinctive spontaneities which are so much better than any pedagogic devices, and to give free opportunity for the children to question, the teacher in accurately pronounced, few and well-chosen words, by a premeditated plan and with cheerful face and accents, imparts the needed information, calls attention to the parts and properties of the object, and if possible excites the children's minds to reaction in conversation. Perhaps models, colored, and later, because color interferes with form and drawing, uncolored pictures, which are successive stages of abstraction are used. Perhaps the pictures are at first complex and including many objects, as Bock suggests, or more commonly of simple, familiar objects at first. Such pictures are so esteemed in many German schools that they are hung up later, and used as aids to conversation-exercises in learning foreign languages, being mostly of kitchen-interiors, barnyards, parlors, out-of-door, summer and winter school-scenes, farmers and tradesmen at their work. There is a great diversity of opinion among professional pedagogues as to how long these exercises should be continued. Richter would have them fill nearly the whole of the first school-year, with no reading and writing till the second, less to teach the children high German than to insure enough knowledge of real things at the start that subsequent labor be not wasted in cultivating a desert. Schäfer thinks four weeks of this enough. The law of Wittenburg allows so little time for it, that it requires that at the end of the first year children read easy sentences in script and print, and write script and capitals. What is wanted is to turn the full, deep current of life and out-of-door interests into the school activities, and to familiarize children with book language always separated by a wide and deep interval from their own. The teacher must draw and give chalk-talks, and some give no books and even show no print till toward the end of the first year, occupying the class entirely with objects, slates, or pencil and paper, and other simple school apparatus, and insisting that every written word or phrase be read over and over again.

The *primer*, which was originally a little religious book used at prime or dawn, should first of all have large and well-formed letters, respecting which Javal has lately made important researches, small type being harder for boys than for girls. If the lines are too long, say ten centimeters, the eye in passing from the middle to the end of the line must change its accommodation, if the book be held at the normal distance. The strain thus involved is, of course, slight till lines are read with some rapidity, when it becomes excessive, and often leads to myopia, the seven-centimeter lines of the common French novel being nearer the hygienic limit. The different letters of print begin to be visible at quite different distances, so that a change in form for some of the worst of them would considerably increase the amount of legibility to a square inch of printed matter. The opening of *u* should be less than *n*, to seem equal to it; the bottom of *y*, *g*, and *j* need modification; *h* and *b* require more differentiation; *a*, *c*, and *e*, *p*, *x*, *l*, and *i* could be improved in ways he details. The specimen pages of Javal's reformed typography, with lessened lower lengths, and more differentiation along the upper half of the small letters, which is the line the eye naturally follows, increased interspaces between letters being more than compensated in economy of paper surface by reduced width between the lines, are not only beautiful and clear, but present the casual reader no innovations, but only unusual clearness.

Some method there must be, or there is great waste. The first primer question is, what *normal words* shall be chosen?—a problem which determines to some extent the previous object-teaching and the choice of the earlier reading matter later. Some prefer many words, and one gets all the forty-three sounds commonly used into fourteen. Most give precedence to nouns, while several proceed to adjectives, verbs, and a few to prepositions and adverbs, while one uses as normal material the forms of the verb *to be*. Some prefer monosyllables, some words of two or three letters, and one, with great pains, takes the name of each child as its first normal word. Most prefer Anglo-Saxon, or at least those words that carry their etymologies with them, that are of familiar meaning and about equally hard to read and write. Most of the rigorous script-methods begin with a noun containing the vowel *i*, which is reached by analysis, and perhaps permanently painted on the board with slant of the due number of angles, and transition is made to *u*, *m*, *n*, and in German script to *e*. Sometimes a bias toward science, art, industry, etc., is freely indulged in the selection of these words and the object-teaching which they focus. Sometimes the form-elements of letters, and sometimes the vocal elements of speech, minutely analyzed and graded on some real arbitrary genetic principle, or according to the least change in transition, are the main determinants in the choice of normal words. The finer the analysis, and the more fully one set of conditions in the choice of normal words is fulfilled, the less perfectly are the other desiderata met. All advantages cannot be combined in any single series of words, or even of meaningless noises, so that several sets of normal words may have about equal merit, the best being, of course, those that realize, though but partially, most of the conditions of excellence. On the concentrative plan, these words and objects are for a time the focus of nearly all the work of school; riddles, so much used in German schools to the great delectation of children, proverbs, games, out-of-school occupations, as well as writing, printing, drawing, phonic drill, and even spelling and the composition of longer sentences, make these words the nucleus of many contexts and connotations out through widely dispersive fringes of association. The heart, and its moods of sad and gay, are appealed to by story-telling, the consummation of the primary teacher's art, and in some lands her ability in this line forms an important part of her examination. In Germany, songs—sometimes found or adapted, and sometimes made by the teacher, in some cases with the selection of words in view, when they are, of course, usually very poor, and in one primer-system a song for each normal word, taught by rote, with the aid of that most pedagogic of all instruments, the violin—are used as a bond of unity between teacher and class, the children themselves and the scattered parts of knowledge. In some recent European programs this work is schematized and laid out with one new and different step for each day in the school calendar, not by way of requirement, but of suggestions, with great care that but one difficulty be encountered at a time, and with many reviews, repetitions, and concert exercises, both *presto* and *adagio*.

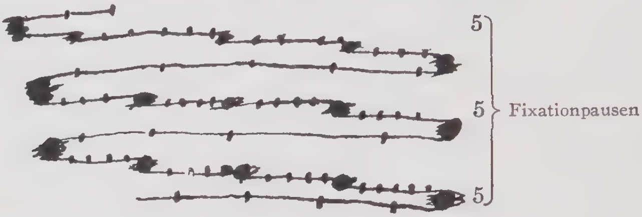
Most pedagogues now assume that knowledge should always precede practice; that fingers, hand, and arm must be immediately guided by consciousness; that, e. g., in writing, the child's mind is also to act, carrying along a feeling of the sound, whose graphic symbol it is making, in a sense of the letter-name, or the meaning of the word; that there must be some development of "mouth or hand consciousness," etc. The motto, "all with consciousness," applied here, means the control of attention and movement by the will, and the immediate application of theory and insight to regulate practice. But the powers thus exercised, however fit the method, soon tire, and in some children are exceptionally feeble, so that there is often peculiar advantage in diverting the attention, and in merely mechanical repetition. Children are so automatic and imitative, have such a genius for the facile acquisitions of habit, and are so easily stupefied by reasons and explanations, that some seem to learn to read and write so mechanically as to get by it no trace whatever of really mental discipline or development. The sooner all these processes are completely mechanized, so that reading is rapid, sure, and free, the sooner the mind can attend to the subject-matter. Till then, Benecke thought reading and writing a necessary evil, and that processes so mechanical and arbitrary should be taught mechanically and arbitrarily, hoping for a time when children should be born with the spelling-mechanism innate and instinctively perfect in their brains. There appears to come to many children a period, lasting perhaps many months, between the ages of five and eight, when both interest and facility in learning to read culminate; and if this period passes unutilized, they learn it with greater difficulty and at a certain disadvantage. To this, however, we shall recur later.

Children should not be allowed to suspect that these processes are hard, as they are likely to do if they detect the teacher's method. It is the inveterate vice of the pedagogue's mind to forget that all methods are only means, and never ends, for the pupils; that the highest art is to conceal art; that method in teaching, as in philosophizing, is only "an arch overhead in tunneling" a hill, which serves to keep off the falling sand, that the work may go on effectively beneath; that it is not unlike the bony skeleton, giving form and effectiveness to the body, but ghastly if exposed. Children love wholes, and their mental acts are large, generic, and often complex. They abhor elements, details, abstractions. They find, at least in the vernacular, sentences easier than words. The passage from Telemachus, with which Jacotot would begin, is too long; but his error is far less than that of those systems which begin letterwise rather than wordwise, or like some "new methods" which reduce the letters to formal elements at first. The word "reading" means *gathering*, and from the act of grouping letters to words, as the teacher's pencil points along the line, as it should do at first, to that of thinking into unity the contents of paragraphs, chapters, and volumes, the whole work of reading is essentially synthetic. Whether it be taught by a truly natural method depends on whether the previous analysis of the teacher has been correct, or such that only its absence would be felt, because without it some steps would be too long, too short, or in too many directions, or out of orderly sequence.

In fine, the growing agreement that there is no one and only orthodox way of teaching and learning this greatest and hardest of all the arts, in which ear, mouth, eye, and hand must each in turn train the others to automatic perfection, in ways hard and easy, by devices old and new, mechanically and consciously, actively and passively, by things familiar and unknown, and by alternately resting and modulating from one set of faculties to another, tends to secure mental unity and school economy, both intellectual and material—and this is a great gain, and seems now secure. But there is still very much to be learned, which only long and painstaking pedagogical experiment and observation can reveal, respecting the most sanative and normal sequence and proportion of all these ways, respecting which there is still much difference of opinion and practice. Not merely the native powers of children, but those of teachers should be studied and given free scope. The natural tact for some special and partial method which so many teachers have should be encouraged and not suppressed by the printed official course or program.

While a good pedagogic method is one of the most economic—of both labor and of money—of all inventions, we should never forget that the brightest children, and indeed most children, if taught individually or at home, need but very few refinements of method like the above. Idiots, as Mr. Seguin first showed, need and profit greatly by highly elaborated methods in learning how to walk, feed, and dress themselves, which would only retard a normal child. Every increase in the size of the class, too, beyond a certain low point, retards the progress of the individual child and necessitates subtle if not hypertrophied methods. Yet, in the present condition of things, they are likely to grow more and not less useful in the future. Above all, it should be borne in mind that the stated use of any method does not preclude the incidental use of any and perhaps of *all* others. To write the letters may help one child; to name them, another; casual allusion to, or illustration by, the interjectional method of Oehlwein, or to the gingerbread method of Basedow, a third. In fine, nothing of this sort which a tactful teacher knows well can fail to help her and her pupils.

This is not the place to analyze in detail the many *psychophysic processes involved in the act of reading*, which in recent years has been made the subject of manifold and fruitful investigations, but we must briefly résumé the pedagogical results of this work, which have established a number of approximate norms and given such a wealth of educational suggestions despite the fact that but relatively few of these studies have been made upon children. In reading the strain falls chiefly upon the center of the retina with little, important as that little is, for the periphery to do, although as Dodge shows, it is not so fatiguing to read as to follow objects through the window of a train. Accommodation must be symmetrical, and this shows that lines must not be too long, because when the point of fixation is nearer to one eye than the other and constantly changing, there is much strain. The now familiar discovery that the eye in reading does not move at a regular rate along the line, but in a series of jerks with resting intervals between, that their total is much longer than the fixation time, was important. This fact that the work of reading is in eyefuls (as we eat in mouthfuls) has led to many investigations concerning their size or the number of jerks across a line. Perhaps the very most important practical result of experimental investigations on the act of reading is the fact that the eye moves by three or four hitches along the printed line and then leaps back suddenly, its progress being a zigzag line.[1] This varies greatly with individuals, with facility of reading, etc. Very important is the fact that in traversing the whole line the eye does not go quite to either end, that it dwells longest on the first eyeful of a line, and especially of a paragraph. Huey[2] found that when reading matter was distributed in lines of not more than twenty-five millimeters they were read with one downward sweep with no lateral movement, so that the total motion of the eyeballs is hardly one fourth as much as with longer lines. Moreover, with short lines, more words per fixation are read than with longer ones. In the sixty-millimeter line common in newspapers the average rate was 3.63 words per fixation, while in longer ones it was distinctly less; hence short lines, especially for children, and where the page must be large, double columns, ease eye-strain. Short lines, too, favor keeping what has just been read in indirect vision as well as what is coming, and my own experiments with letters pasted on a rotating drum showed the great importance of the unconscious preparatory work done by the visual function in the indirect field. Again, uniformity in the length of



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[1] Die wichtigsten Ergebnisse der experimentellen Untersuchungen über das Lesen, von Jakob Schwender. Leipzig, Otto Nemnich, 1910. 56 p.

[2] E. B. Huey, The Psychology and Pedagogy of Reading. N. Y., The Macmillan Co., 1908. 469 p.

line is important, as Dearborn[1] showed, because readers readily acquire a habit of making a constant number of both movements and pauses per line. There seems to be a certain consensus that a line more than ninety millimeters long places the reader at a distinct disadvantage. Moreover, a book too large to hold in the hand for constant readjustment exposes the letters at an angle, and this is a disadvantage. It seems clear, too, that young children need a shorter line than adults.

Reading is *near* work, and this as well as zigzagging across the page is a source of strain, because normally the eye rolls near and far and relieves the strain on the ciliary muscles. Near work, together with imperfect light, is the chief cause of the alarming development of myopia with all the evils of excitement, choroid strain, squinting, and stooping, and the resulting congestion that follow in its train. It involves constant tension on the muscles of accommodation as well as tends to strabismus, so that light, seat-adjustment, and slant of the desk may all contribute to defective eyesight, which we now know is such a fruitful cause of nerve-strain generally. Again, as Hartwell long ago pointed out, stuttering, which affects at least seven children in a thousand, and which is most liable to occur at the seventh year or the period of second dentition, is largely due to reading aloud under abnormal conditions; thus the schools begin to act as nurseries of both stammering and stuttering just at the time when instruction in oral reading is most intensive. Any or all of the muscles involved may be at fault. The danger comes just when the control of the articulatory muscles passes from a lower to higher brain center. Oral reading may precipitate this transition. Moreover, fatigue in reading is not merely ocular, but mental, just in proportion as the mind takes in and is alert upon the content. The mind must steadily jump from one item to another and gather up from the parts the total idea for the very word reading means to collect. Thus the apperception centers involved in looking, in contrast to seeing, are themselves constantly strained. The whole mental machinery is shifting, associations strained and rapid as compared with spontaneous mentation, so that the mind is under severe control and has to be actively receptive, and this, too, in proportion largely to the rate of reading.

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[1] W. F. Dearborn, The Psychology of Reading. N.Y., Science Press, 1906. 134 p.

As to the size and form of letters, space, etc., fatigue increases rapidly, as Griffing and Franz [1] showed, as the size of type decreases. It would seem from various studies that a height of about 1.5 millimeters for small letters like *a* should be the minimum, and that the younger the child the larger, within certain limits, the letters should be. The thickness of the vertical strokes should not be less than .25 or at most .3 millimeters. The thickness of the letters themselves is important. So is the space within the letter between the vertical strokes, while there is much less advantage in increasing the distance between letters. As to the form of small letters, *e* and *c* are hard to distinguish; so sometimes are *t*, *i* and *l*, *h* and *k*, while *z*, *o*, and *s* are indistinct. Some letters, like *w*, can be read at about four or five times the distance that *e* and *c* of the same size can be distinguished. Hence we need certain modifications in our typography that shall distinguish these letters, especially the upper half of them, which is the most important part for relieving eye-strain. It is clear that black on white is better than any other combination for the maximal *amount of legibility per square unit of space.* Slate writing is less legible than that on white paper. In point of fact, most school books still fall a good deal below the hygienic requirements, and as Huey well says, every school superintendent should subject every text to a magnifying glass and millimeter scale.

A word involves *four sets* of images—visual, auditory, motor and the ideal or meaning. The study of defects of language, especially the forms of aphasia, shows us conclusively that these functions are so independent, one from the other, that any one or more of them may be lost without impairing the integrity of those that remain. Nevertheless, in normal common life they are completely integrated. Teachers should understand, too, that words that express objective things or acts, especially those which are familiar, are less firmly grasped by the mind than those that have only thoughts for their content. In progressive aphasia, these latter abstract words remain after those expressing the most familiar things are gone. Not until we have distinct chairs for the psychology of speech which correlate the teachings of all pathological data with those of child study and of comparative philology, shall we be able to place language work in our schools upon a permanent scientific basis. The fourth of the above factors is most active during the pauses of the eye in its jerks across the page. Speed diminishes the number of fixation points and also their length. Nevertheless, those who read most rapidly understand best. The synthetic nature of reading is shown by the fact that two or three times as many words can be grasped in the same unit of time if they are connected one with the other. If Dearborn is right, that attention precedes the eye and pulls it along, it will be interesting to know whether the former is not more ahead of the latter in the early part of a sentence than in the latter part. With practice, not only is the field of attention widened but the intellectual part of reading becomes relatively more and more predominant over the mechanical as the latter lapses to automatism. Everything that increases legibility by increasing the difference between letters, therefore, not only relieves eye-strain, but frees energy for the work of intelligence. One reason why smaller type is advantageous for practiced readers is that with it more can be seen simultaneously because the mind with expertness takes in ever larger wholes, and there are probably domineering words in many phrases and sentences as there are letters that give their general physiognomy to words. As to the range of individual differences of rate in reading within the limits of normality they are very great. Dewey found them to range from 2.5 to 9.8 words per second. In the occasional cases of children otherwise bright and with normal eyes that can with great difficulty learn to read, we have doubtless to deal with innate differences of this kind and greater only in degree. Probably some cultivated adults read from two to four times as fast as others just as cultivated. There is some indication that for the more practiced readers, the anticipatory work to the right of the fixation point increases and that the space between the eye and the focus which is always changing is greatest in most rapid readers, so that the latter with each new line at once begin to adjust to its completion.

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[1] On the Conditions of Fatigue in Reading. Psychol. Rev., 1896, Vol. 3, pp. 513-530.

There is no doubt that the tendency of child beginners to keep place with the finger is helpful and that both aloud and lip reading have their place, but that neither of these should be prolonged because each has its dangers.[1] The sentence sense helps us to recognize words through their meaning or content, that is, the mind is being prepared for what is to come so that as we advance through a sentence, more possibilities of meaning are eliminated and others increase to probabilities. This thought process may be impaired by too much oral reading, which also tends to slow down the process, if too incessant. We must not forget that reading is essentially a process of thinking.

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[1] W. B. Secor (Studies from the Psychological Laboratory of Cornell. Am. Jour. Psy., Jan. 1900. Vol. 11, No. 2, pp. 225–237) by careful experimentation proved that visual reading was possible without articulation or audition, that the prominence of this latter element in reading depends on the type of the individual and upon the amount and kind of reading done by him. To eliminate these elements and to read by vision alone, it is, of course, necessary to read with great rapidity. It would seem to follow that eye-minded people can learn to read with greatest rapidity.

Nearly all reading methods now start from the word and sentence rather than from the letter, and these are more often chosen for their form value than for their thought value. Becker showed that words are *first recognized as wholes* from their gross forms rather than from the letters that compose them, and Messmer showed that in the tachistoscope long words may be recognized as rapidly as short ones, but that they tend to be analyzed into small groups of letters. Cattell[1] and Sanford[2] showed that certain letters and combinations in ordinary small type are recognized far easier than others, and there are many indications that the consonants are more important than vowels for recognition. If vowels are taught first there must be greater distinctness in their printed form and less confusion in the sounds attached to each, says Dr. L. P. Boggs.[3] Cattell found that when two or more letters up to five are exposed at the same time, the total time needed for recognition may even be shorter than for each letter shown separately. These short words are recognized and spoken more quickly than letters. Moreover, words not in sentences and letters not in words take twice as long for recognition. Many believe that the sentence for a maturer mind should constitute the unit in reading. Children from seven to twelve read nonsense texts almost as rapidly as that which has meaning, while for adults the former takes twice as long. Dr. Boggs exposed a letter, a syllable, and a sentence, side by side, and in all cases found the sentence recognized first oftener than any of the others.

If we venture to take a larger view of the whole subject of the psychophysiology of the reading act we shall realize how very great is the need of a radical reform in the interests of nerve- and eye-strain.

Dr. George M. Gould[4] has called emphatic attention to the deleterious effects of *eye-strain* upon the general health and studied the biographies of great men and leaders who suffered during a large part of their lives from this cause. He urges with great force that many ailments of the nervous system, stomach, etc., not usually ascribed to this cause by physicians, are really due to it and upbraids editors and the medical profession generally for the indifference with which his researches have been received. His work deserves the serious attention of every hygienist and is of absorbing interest throughout and leaves the impression on every candid cultivated mind that, even if he claims too much, he has made a contribution of great value to the subject. Strange to say, however, he ascribes this difficulty almost exclusively to bad habits of using the eyes, improper glasses, etc., and has almost nothing to say of typography, which is of vastly more importance for the well-being of all who read much, than we have ever dreamed it to be. We rise from the perusal of his pages with the feeling that all who have much to do with books take great risks of invalidism of many and perhaps excruciating kinds. Indeed, when we reflect, we realize that there are few vocations that are so unnatural for the organs or parts involved as is reading for the eyes and brain. The constant fixation, with almost unchanging accommodation and convergence, the monotonous zigzag across the lines which the fixation point must follow with constant exactness, the almost tonic cramp of attention and of apperception to take in the meaning of every word and phrase and to give every one its due weight, and to reconstruct precisely all that the author intended to convey, is about as far from the ordinary uncontrolled activities of the eye and spontaneous thought as anything that can be conceived. Hence, from this point of view, it would not be surprising if in this reading age the legibility of the printed page was now a matter of cardinal importance for national and racial health. Tens of millions of people spend much time and energy every day on the printed page, so that every easement here would be a world-wide benefaction. While, as we have seen, many problems in this field have been solved, there are many more and larger ones that await solution. Hence we ought to have a well-organized and coöperative agency for investigation. We do not know whether there is any inherent advantage in reading from left to right as we do, or from right to left as Hebrew is read, or indeed whether alternation or reading both ways may not, if sufficiently familiarized, be very economic, instead of having the eye go back empty to begin a new line. Typesetters become familiar with modes of reading that are almost impossible for the cultivated adult, and yet mirror-script and mirror-printing would doubtless be just as easy to learn at the beginning. Again, it may be that reading down a page, as in various Oriental languages, would have certain advantages, as are suggested by Huey's experiments above, and if so, we might possibly also read up the page, too. From a purely physiological point of view there might be advantage in changing the direction of the movements and muscles, even at slight angles, occasionally. There is no question but that a totally different set of letters or phonic symbols could be devised that would greatly facilitate the reading act. Some have even attempted to construct such symbols. A careful analysis of forms that could be used for letters very likely would show us that certain additions to our alphabet would be advantageous. Why, when we are considering a spelling reform that shall dispense with all silent-letter relics, which increase the space and expense of printing at least one tenth, and some think more, should we not grapple with the larger problem of a new and more hygienic alphabet? Diversification of a page, even by such a device as the German habit of capitalizing nouns, gives a different total word form, and as this for the expert reader is perhaps even more important than the letter form, attention should be given to it. Changes in type, italicization, spacing—all these add to the reader's object, viz., quickly getting at the gist of the matter. What we seek is such a distribution of the stimulus over the retina by such an arrangement of characters and words as shall convey most complete meanings in the easiest way and utilize the indirect retinal field. We are learning more and more to supplement the monotony of type with illustrations of all kinds, picture printing, and to use the great varieties of the graphic method, which is almost a language by itself. Advertisers have made an important contribution in inventing all kinds of diversified and attention-compelling modes of conveying ideas in the quickest form and with the least strain. Possibly the pictograph and certain hieroglyphs and standard abbreviations and signs may contribute something to the art of reading in some far future when we have it completely rationalized and rightly coordinated with all the other arts of conveying intelligence, such as telegraph codes, graphophones, etc. We have yet to determine the optima along various lines, but it is certain that this work must be done sooner or later if we would save the eyes of future generations. We must bring to bear all that is known of the attention span, the interesting studies on very rapid and intensive reading, not only by words instead of letters, but by sentences, and perhaps even by paragraphs, extend our studies of early reading to include not only stammering but lapses as studied by Wells,[1] De Busk (in a study soon to be printed), and to resurvey the history of the methods of teaching reading and the old primers, as admirably set forth by L. W. H. Fechner,[2] studies of the visual and other imagery that accompanies all the reading processes—all this we must do before the splendid new era of investigation started in this field by Javal[3] is brought to a completion befitting the possibilities of the new psychology and the urgent needs of education. Griffing and Franz,[4] from their experimental study, decided that the size of type was the most important condition of visual fatigue. Quantz[5] concluded that colors are more easily perceived than geometrical forms, isolated words than colors, and words in construction than disconnected words; that the visual type of persons usually read more rapidly than the auditory type; that they not only do their work in less time, but do it better, and that lip movement is a serious hindrance to speed and therefore to intelligence in reading.

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[1] James McKeen Cattell, Ueber die Trägheit der Netzhaut und die Sehcentrums. Wundt's Philosophische Studien. Bd. 3, pp. 94–127.

[2] Edmund C. Sanford, Relative Legibility of the Small Letters. Am. Jour. of Psy., Vol. 1, pp. 402–435.

[3] How Children Learn to Read. Ped. Sem., December, 1905. Vol. 12, No. 4, pp. 496–502.

[4] Biographic Clinics, P. Blakiston's Son & Co., Phila. Vol. 1, 1903. 223 p. Vol. 2, 1904. 392 p. Vol. 3, 1905. 516 p.

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[1] Frederick L. Wells. Linguistic Lapses with Especial Reference to the Perception of Linguistic Sounds. N. Y., Science Press, 1906. 110 p.

[2] Die Methoden des ersten Lesenunterrichts. Berlin, Wiegåndt, 1882. 304 p.

[3] Louis Émile Javal. Physiologie de la Lecture et de l'écriture. Paris, Alcan, 1906. 296 p.

[4] On the Conditions of Fatigue in Reading. Pyschol. Rev., 1896. Vol. 3, pp. 513–530.

[5] Problems in the Psychology of Reading. Psychol. Rev. Suppl., 1897–99. Vol. 2. 51 p.

The best pedagogues are now drifting surely, if slowly, toward the conclusion that instead of taking half the time of the first year or two of school to teach reading, *little attention should be paid to it before the beginning of the third year*, that nature study, language work, and other things should take the great time and energy now given to this subject. Huey collected nearly one hundred primers, and classifies reading methods as alphabetic, phonic, phonetic, word, sentence, and combination methods. The true teacher will not entirely neglect any of these methods, and psychology has little respect for or even recognition of the absurd stress laid upon petty variations by the modern primer maker. Their analysis in this field has fallen far behind practical needs, and has brought methods into too great prominence. We can agree with Huey that the home is the natural place for a child's learning to read, and intelligent children of intelligent parents will almost do so of themselves sooner or later. Primary reading should no longer be made a fetich. This should always be secondary and should have a purpose—that is, there should be no reading for the sake of reading, for this is never an end, but should always be a means of gratifying an interest. There should be much practice in silent reading, and there should be more oral work until speech habits are well developed. Most primers should vanish and so should mere exercises. The vacuity of the content of most primers is deplorable, and the matter of most of them should be radically revised. Drill in spelling, phonics, etc., should be distinctly separate from the actual work of reading or taking in ideas unchanged.

Prof. G. T. W. Patrick[1] found that seventy-two per cent of the time of the first three grades and at least half of that of the fourth grade in Chicago schools was devoted to reading, writing, and mathematics. If, therefore, our educational system is rational, these are the topics best adapted to the child between five and ten. The sapient committee of fifteen concludes that learning to read and write should be the leading study of the pupil in his first four years of school, but the Greeks used most of this time for music and gymnastics. Reading and writing involve a high motor specialization, holding the body, legs, and arms still and moving eyes and fingers. The book method of study is not physiologically adapted, and movements of the eye and pencil have much to do with increasing eye and nerve defects up the grades. Patrick would have books, pens, and pencils kept away from children until they are ten, and all instruction come directly from objects and the voice of the teacher. The power of attention is slight, and he would put in place of the three R's, natural history, science, and morals. Spoken language, not written, belongs here. It is bad to leave children at their desks with the general direction to study. They could better be taught to speak, to listen, to observe, to remember, and do right if everything were oral. Man is not a sedentary, reading, writing being. Perhaps number forms are evidence of the necessity of the child to give abstractions some bodily shape.

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[1] Should Children Under Ten Learn to Read and Write? Pop. Sci Mo., 1899, Vol. 54, pp. 382–392.

Few realize how complex is the *act of reading,* says A. S. Williams.[1] It requires coördination of motor, sensory, and perceptive powers. We cannot guess what our vision would be if the eyes were fixed. The eye darts and rests on the page, and while it moves nothing can be distinguished, so that even in reading we are blind for a fraction of the time we think we see best. We are unconscious of the inversion, lateral and vertical, of the retinal image. Yet all this has to be interpreted and we have to unite the impressions from both eyes. A girl with strabismus was thought very careless and learned, as she said later, that she must not say two words when she saw them. Figures were often doubled in her adding. Often the movements of the eye are not controlled. The graded school is a forced march. The weary eye slips half a line, words are often omitted as are letters in spelling, so that skipping and repeating is often a trouble of the eye. In Germany the percentage of myopia ranges from 3 per cent in the country schools of all grades to 56 per cent in city gymnasia; in Denmark from 2 to 32 per cent; in Chicago from 4 to 27 per cent in the elementary schools; in New York from 3.5 to 26.8; and in Brooklyn 28 per cent of fifty thousand children had sight defects, and 10 per cent had defects of hearing. In seeing charts at a distance myopic children are at a great disadvantage, and children are often in the teens before they learn of their defects. These tests should be made on every child on entering school. Astigmatism, too, is the cause of much poor work and headaches. In Wellesley, Mass., 63 per cent of the pupils were found to be astigmatic. Errors of accommodation are common and much that is charged up to carelessness and inattention is due to these causes. Poor readers are usually poor spellers, and nervous eye tremors are often found in such cases.

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[1] Visual Inaccuracies in School Children. Educ. Rev., 1903, Vol. 26, pp. 180-189.

Dr. A. Mayer[1] gave boys in the fifth school year two sets of five different exercises each, one set to be done in the classroom and the other in a schoolroom alone with a class teacher. These exercises included dictation, oral and written arithmetic, memory, etc., and were designed to cover all the typical mental activities of the school. The result showed that for all five of these exercises the time was shorter in the classroom than when the pupil did it alone with the teacher. The quality of the work in the two cases, judged by the number of errors, depended somewhat on the directions. If the pupils were told to work rapidly and beautifully, the errors were less in class. If they were told to do their work well and slowly, the best work was done alone, as was the case if they were told to work very rapidly. Yet, in general, all things considered, both the quality and quantity of work were best when it was done in the schoolroom in the presence of other children.

Meumann[2] varied this test somewhat and found that while there was little difference in children of thirteen and fourteen years of age, with those of eight and nine, work was done distinctly better in class, and 80 per cent of all distinctly preferred to work in class and were not disturbed by its distractions. Those who were, were sensitive, nervous, or weak. Dynamometer and ergographic tests also showed a greater quantum in the work of boys which was done together, which was ascribed in part to the strong spirit of emulation among them. F. Schmidt,[3] by similar methods, compared the quality and quantity of work done at home and in the school and found the latter far superior. Less work was done and far more mistakes were made at home. Where home-work was done, the best hours for it were from five to seven, and another surprising result was that the best work was done just after a meal. This difference varied with the different studies and with ages. Composition work suffered least at home. Meumann attempts to find causes for these results: in distaste for work at home; in the greater strength of other attractions; in the habit of home freedom; in the fact that school is controlled by the authority of the teacher; that its obligation is forced; that there is more emulation, etc. He has noticed himself in working in a silent library on Sunday that effort soon becomes difficult. Perhaps the habit of concentration is valuable and Pestalozzi was right that any amount of distraction in the school was not harmful.

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[1] Ueber Einzel- und Gesamtleistung des Schulkindes. Archiv f. d. ges. Psychol. Bd. I, 1903, Heft 2–3, pp. 276–416.

[2] Ernst Meumann, Haus- und Schularbeit. Leipzig, Klinkhardt, 1904. 64 p.

[3] Experimentelle Untersuchungen über die Hausaufgaben des Schulkindes. Archiv f. d. ges. Psychol. Bd. III, 1904, pp. 33–152.

These experiments teach that the child is not yet independent and needs stimulus and control. Only review work should be done at home. The instinct of competition is a valuable tonic and stimulus for the mind, and this is best cultivated in the presence of others. The school brings the influence of the child's own future more effectively to bear. Spontaneous motivations for work are not yet developed. From this perhaps it follows that it is wise to associate pupils of a class somewhat according to their gifts, but both the leaders of the class and the dullards are helped by association. All that follows is not that the school is ideally the best method of education, but only that it is best for the present stage of society. Pupils who are trained alone under tutors therefore lack a certain motivation. Perhaps there is some implication as to the nature of the child's household. Some advantage is to be found in making home-work very intermittent. Study late in the evening is pedagogically worthless. These conclusions involve a good deal of reconstruction of previous views concerning the relation of the home and the school and the distribution of work between them.

Triplett[1] found that children could work more rapidly if two or more worked together, although their movements, if very hasty, were sometimes uncoördinated. This suggests the value of mental pace-makers. Féré[2] found ergographic work diminished when the eyes were blindfolded or the work was done in a dark room. It was increased when the worker even looked at another person making gestures of doing the same work, though not really working. The effect of seeing another person simulate work lasted some time, but if the worker looked too long at the pace-setter the effect on his own work was unfavorable. So for pupils the very sight of others working is a stimulus. This stimulus is greater when the worker is fatigued than when he is fresh. Thus, an exhausted person is somewhat like an hysterical subject. From all this we see that the will and resolution of a worker are only a part of the conditions of his achievement. There are unconscious factors that work with or against him. Griesbach[3] shows that afternoon school-work causes a very rapid increase of fatigue in pupils. Schmid-Monnard[4] found that it nearly trebled the number of pupils pronounced sickly. Dahn[5] and Schröder[6] found that of one city in Posen of 219 teachers, only

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[1] Norman Triplett, The Dynamogenic Factors in Pace-making and Competition. Amer. Jour. of Psy., July, 1898, Vol. 9, No. 4. See p. 520.

[2] C. S. Féré, Travail et plaisir. Paris, Alcan, 1904. 476 p.

[3] Hygienische Schulreform. Hamburg, Voss, 1899. 35 p.

[4] Entstehung und Verhütung nervöser Zustände bei Schülern höherer Lehranstalten. Zeitschrift f. Schulgesundheitspflege. 1899. Vol. 12, No. 1, pp. 1–19.

[5] E. Dahn, Durch welche Aenderung in d. Organisation d. höheren Schulunterrichts lässt sich d. Ueberbürdung v. Lehrern u. Schülern beseitigen? Pädagogisches Archiv, 1898, pp. 735–758. *Also* Z. Ueberbürdungsfrage. *Ibid.*, pp. 758–770.

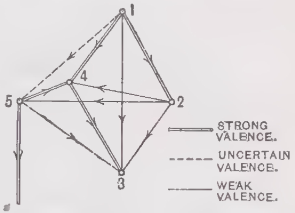
[6] Heinrich Schröder, Der höhere Lehrerstand in Preussen, seine Arbeit u. sein Lohn. Lipsius u. Fischer, Leipzig, 1899.

2 were over sixty-five. Out of 900 in Berlin only 1 was seventy. They declared that the teachers are "all half sick." This is ascribed to overwork and particularly to the enormous amount of correction that had to be made. Knöpfel has pointed out the mortality of teachers and ascribed it to unhygienic living and to the defective status of schoolrooms and buildings.

To show the intricacy of the reading processes and also of current experimentation, I append a résumé of a few of the best recent experiments.

In 1894–95 Erdmann and Dodge[1] carried out in the psychological laboratory at Halle an extensive investigation of the mechanics of reading. This included the conditions of visual recognition in reading, movement and resting pauses of the eye, extent of the reading field, and place of the fixation point.

Messmer[2] criticises the work of Erdmann and Dodge as having made their exposure, which was one-tenth of a second, far too long. To analyze the process of reading, the time of exposure must be reduced to its minimum in order to exclude apperceptive and associative factors. In one-tenth of a second every word can be read with approximate certainty, and from experiments that are so prompt and certain little can be inferred. Insight into the process is when the reading is imperfect and uncertain. Zeitler[3] attacks Erdmann and Dodge's conclusion that words were known from their characteristic general form. The content of the idea of this general form was rather dark. The word-picture was said to go into consciousness as a simultaneous whole. Against this, Zeitler holds that this appearance of simultaneous apprehension of a word-total arises always whenever reading succeeds. But the impression of simultaneity involves an illusion for the reader. The rapidity of the acts of consciousness is so great that they seem to be one, so that Zeitler insists upon a succession of acts of knowledge. Again, Störring,[4] from pathological considerations, thinks the rôle of the collective picture is important. For him the tone picture plays an important rôle. His cut is as follows:



1. Visual center; 2, writing center; 3, object concept center; 4, acoustic center; 5, motor center.

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[1] B. Erdmann and R. Dodge. Psychologische Untersuchungen über das Lesen. Niemeyer, Halle, 1898. 360 p.

[2] Zur Psychologie des Lesens bei Kindern und Erwachsenen. Archiv für die Gesamte Psychologie. Vol. 2, 1903, pp. 190–298.

[3] Tachistoskopische Untersuchungen über das Lesen. Wundt's Philos. Studien, xvi., pp. 380–463.

[4] Vorlesungen über Psychopathologie. Engelmann, Leipzig. 1900.

The chief point is that the strong valence for the mechanism of reading, if we base our conclusions upon pathological grounds, is for the tract from the scriptive image through the tone image to that of the object. This does not mean that in reading one has a constant ringing in the consciousness, for the tone center can function constantly without arousing a concept.

Words were read when their middle coincided with the fixation point or was right or left from it. The maximal range of attention was tested with words that had meaning and with senseless combinations. Sentences were read by fixating the point. The range of the field of vision was tested in an open field and where the center of it was covered. Without the tachistoscope, experiments in ordinary reading were made by measuring the time and noting the quality and quantity of errors. The following are the chief results: The individual differences of normal time diminished greatly by practice. There are two types of adult reading—objective and subjective, with transition stages. The first is marked by rigid fixation, little range, and objective fidelity. The subjective type is marked by fluctuating fixation, large range of attention, which is often worked inward, and with a tendency to subjective interpretation. Children show a little of this individual differentiation. Their attention is fluctuating with large range. They do not observe with objective sharpness, and their attention is more passive than active. A child, when learning to read, does so with innervation divided between optic and motor, and the former innervation develops more easily than the latter. The optic image with the child before the tachistoscope is clear only so far as it becomes articulatory, but the range of innervation for the general acoustic motor reaches its maximum sooner than does the general optic image. This difference is least in the short common words and clearest in long and uncommon words.

The optic word image in general consists of a black strip of relatively estimable length with a few rhythmically dominating apexes with characteristic vertical marks, the rigidity of which is slightly modified by curves. Each word has an optically individual type. The degree of its individuality depends first upon the relations of the letters with their different figuration. The more or less unitary character of the general form means a more or less strong impulse to optic innervation. The more unitary this general character of the word image is, the stronger is this impulse to innervation, but the less the certainty of recognition. Letters are grouped as to optical valence: first, according to the different heights of the type, and secondly, according to their individual configuration. By broken printing, characterized by decorative elements, this is more marked than in antique type, but recognition is less. Changes in the exposed word image cannot be explained by the change or fusion of letters alone. There are also anomalies of noetic centers. While in general the letters in a word picture maintain a degree of their optic worth, these optic signs of valence may be crossed in some cases by psychic factors, the most important of which is the preëxpositional tendency of the attention. While type I is apperceived chiefly on the basis of a few known dominating letters, in type II use is made of the general character of the optic image. Ordinary reading generally expunges this difference which comes out best when the stimulus threshold is reduced, and thus a general exaltation of the stimulus value of the various letters is caused. In recognizing a word image two factors are thus involved—the general optic character and the dominant letters. The former is simultaneous and the latter successive. Words of great length cause a slight depression of feeling, and this limits the range of attention. There are three cases; one or the other of these factors may dominate, or both act together.

The sound image of a word connects itself with the apperceived optic image. This connection must be mechanically practiced and is aided if the spacial extent of the optic image gives some measure of the number of syllables, rhythm, melody, etc. The motor succession of the speech motor images is coördinated with the succession of sound images. Articulatory mechanism is slow; the optic impressions are very much more rapid. Type determines whether there is an interval or not between the objective perceptive and the subjective apperceptive. This interval is marked in type I. The intensity of the contrast between the black type and its white blackground does not intensify the typical character of the optic image, but only the strength of the stimulus. There are psychic acts which are present, but of which the outer conditions of their arising cannot be determined. Thus every act of reading, the most subjective, is more or less objectively determined. Expectation concepts and objective stimulus value can alternately compete for precedence. The expectation is strongest in children for whom also neither grammatical categories nor orthographic rules have the same significance as for the trained reader. The syntactic optic elements are inferred more from grammatical feeling than they are really read. Long words in the tachistoscope are more often overvalued than undervalued. Judgment here comes slowly and with age. Long words need more exposure than short, but for ordinary reading sentences with long words are easier and quicker than those with short words, because the latter divide and abstract. Apperception feeling out of impressions is easier toward the right than toward the left. The range of attention grows in children with practice and attains its maximum by about the eleventh year. With adults, however, small range designates the objective, and a large range the subjective type. About three times as much is read when the words have sense than with senseless combinations of letters. The optic rhythmization of senseless letters greatly eases recognition. Vowels are generally not read, but interpolated subjectively. This tendency is strongest in children. A distinct impression tends to repeat itself in memory, and hence causes peculiar reduplications of sound, or long series of sounds often take the place of shorter ones, especially with beginners. Single letters, if the exposure is brief, are very liable to be changed or fused with their neighbors. Initial and terminal letters are most exempt from this danger. Within the word the single letter is relatively safe if its form stands out from that of its neighbors.

In reading complete sentences with an exposition of perhaps one-tenth of a second, despite this long exposure, only those words are usually read that are in the maximum range of the reader's attention. The presence of other words and lines is often distinctly perceived without the least recognition. The minimum of attention is necessary for what has already been read, and this is often used as a control for whether or not the word has been read. Again, what has been read often determines the direction of thought to what is to follow. The significance of indirect vision for reading, if the time is limited, is perhaps completely to direct the eye. In ordinary reading the field of vision changes in scope, and differently in different persons. Recognition and speech time limit this range. Attention widens it. Thus, a small circle would represent the objective type, and a larger one the subjective, and a still larger one about it the unlimited ideal compass of attention. For advanced readers, fatigue and practice offset each other. Fatigue increases much more by rapid reading than with a normal tempo, and most of all by rapid spelling. The difficulty of adaptation by beginners is much greater, but by effort can be remarkably overcome and even the signs of fatigue repressed. In children the tempo oscillates, but grows uniform with practice. Sense greatly facilitates speed. The reading of senseful extracts is for beginners about as slow as that for senseless texts. For practiced readers senseless reading is only about half as fast as senseful. In rapid reading the beginner develops the quickest from the start. Then come unaccountable variations, and his rate may sink below that of normal reading. For the practiced reader rapid reading maintains about the same tempo. For beginners the letter time is usually less than the word time. The sequence in the rapidity in the individual normal time by different persons does not mean the same sequence in the ability to hurry. The functions of error can be brought into a few classes. The same error may have different causes, and conversely. Optic errors are interchanging letters, fusing them, anticipation, and change of form. Motor errors are stuttering, metathesis, abbreviating, mutilation, and assimilation. Thought errors are repetition, addition, and substitution. Grammatical errors are those of case and time. Errors of the same kind are more frequent with children than with adults. Optic errors are least and motor and acoustic most common. Some errors persist from childhood to maturity, like stuttering, addition, repetition. Others pass with childhood, like metathesis, mutilation, and others are common to all ages, like abbreviation, assimilation, etc. While errors diminish with age, they never vanish. Beginners err less in spelling than those who practice, and errors, of course, are more numerous when reading is rapid.

Messmer[1] found in four adults and six children, from seven to eleven, two types of readers—objective and subjective. The former type is characterized chiefly by close correspondence between the physiological fixation point and the point of attention. This slight fluctuation of attention allows the apprehension, therefore, of only a few letters at each exposure. There are few mistakes, but reading is slow. The subjective type goes with wandering attention where its field is large and a whole word may be read from an eccentric fixation point. Attention is directed to the word and there is much confusion as to what is observed and what is interpreted. The former type is seen most in carefully trained observers, while the other type is most common for children and for adults. In opposition to Zeitler's theory of succession from left to right, Messmer's theory is based on the differences in optical distinctness of letters and groups. Dominant letters are seen most easily and quickly, and those less distinct come later to consciousness. Grammatical rules are ignored in such experiments. Fatigue, as would be expected, is greatest when reading is most rapid, and is most prominent in children. They also read nonsense texts almost as rapidly as texts with a meaning, whereas adults read the latter twice as fast. Dodge still doubts, however, whether the results of minimum exposure and threshold stimulation can be readily transferred to the process of normal reading.

Becher[2] found that with short exposures the after image was a negligible factor. Sometimes words of twenty-six letters can be read at one flash of a spark, which shows that Wundt and Zeitler are wrong in assuming that attention shifts. Wundt in these tachiscopic experiments holds the hypothesis that ability to recognize an object depends on the position of the image of that point upon the retina and the position of the point in the field of attention, so that there is, in addition to a point of greatest attention, a fixation point. To test this view the subject directed his attention to the object fixated and in another series to a point left of the fixation point. If the attention keeps shifting there should be no difference in results, but the latter showed that when attention was directed toward the place where they appeared the number of letters rightly read at the left-hand point was more than doubled. Red circles about a plain black letter would seem to draw the attention to them, but results were in favor of the letters without circles. Wundt thinks the reading of words in short periods is apperceptive and not assimilative, but Becher thinks these two are only different degrees of one and the same process. Final syllables were distinguished, though they contained none of the dominating letters; so were prefixes. Hence the conclusion is that the gross word form rather than the dominating letters is the important factor of recognition, and that the process is essentially one of assimilation.

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[1] Oskar Messmer: Zur Psychologie des Lesens bei Kindern u. Erwachsenen. Arch. f. d. Ges. Psychol., 1903, II, pp. 190–298.

[2] Erich Becher: Experimentelle u. kritische Beiträge zur Psychologie des Lesens bei kurzen Expositionszeiten. Zeitsch. f. Psychol. u. Physiol. der Sinnesorgane, 1904, Vol. 36, pp. 19–73.

The gravity tachistoscope used by Zeitler[1] is criticised by R. Dodge.[2] Zeitler's chief point is to prove that the apparent simultaneous apprehension of a word as a whole is an illusion of assimilation, that the real apperceptive process consists of a successive apprehension of the word part by part by movement of attention from left to right in which part of the letters of a word are passed over rapidly while the attention fastens on the dominating letters and complexes. He forces his analysis into Wundt's distinction between apperceptive and assimilative reading. In the former the dominating letter or group rises and fuses with the disposition of similar complexes previously perceived. On the other hand a word is assimilated when on the basis of the apperception of its dominating letters a secondary group of dispositions is aroused connecting the dominant letters into a whole. Thus, apperceptive reading is an immediate process conditioned chiefly by the above image and must occur in the shortest possible time. Assimilative reading is a mediate process which takes longer. But in assuming that the apperceptive proceeds from dominating letters and letter complexes while the assimilative reading depends largely on the total word form, the author begs the whole question. To reduce the exposure to minimum, to isolate apperceptive from assimilate processes do not work. Apperceptive reading involves prominence of the above elements which minimum exposure makes as faint as possible while it exaggerates the physiological inequalities of the retina. Again, assimiliation cannot be limited by the duration of the external stimuli, but is longer.

Coördinate with the difference between apperceptive and assimilative is that between reading with fixed and roving attention. The apparent simultaneity of apprehension of words, according to Cattell and Erdmann, this author thinks an illusion of assimilation caused by the rapidity of the process and the training in succession. The roving of attention does not condition a succession of letters, but a succession in the clearness of the dominating letters in a sequence. This may occur with the shortest exposure, but to be subjectively seen needs an exposure of one-tenth of a second for words of over fifteen letters. Wundt's criticism that the apprehension of such long words must be conditioned by a moving of attention during the long exposure period plus its after image, is not easy to prove. The better the fixation the more the recognition of this movement of attention was inhibited. According to the best introspector, attention does move slowly over the word image, clinging to the dominant parts, is not jerky, and there is a sense of time in passing from left to right. Now these movements cannot occur within one-tenth of a second. Hence, these objective successions and wanderings of attention are not a function of visual apprehension but only a motor acoustic interpretation of it. Long new words must be apprehended part by part. Forms that correspond to no residual of past experience cannot be determining factors in apprehension. Thus, to prove roving attention in the apprehension of familiar word forms under normal conditions, one must either fly against experimental probabilities or take refuge in the theory of unconscious changes of attention. A movement of attention over the field of vision in reaction to the stimulus of unrecognized parts can surely not occur during the time when the total stimulus has not overcome the retinal inertia, that is, within one-one-hundredth of a second. Perhaps it might occur, according to Wundt, in a somewhat shorter interval than his time of difference, but surely not in less than one-third of that interval.

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[1] Tachistoskopische Untersuchungen über das Lesen. Philos. Studien, Bd. 16, Heft 3, pp. 380–463.

[2] The Psychology of Reading. Psychological Review, 1901, Vol. 8, pp. 56–60.

In any discussion of reading, the question of spelling must necessarily be included, and we turn to a brief consideration of some of the problems in this battlefield of pedagogues. "Is *spelling* a lost art?" asks W. E. Mead.[1] "Is it a gift of the gods? Is an infallible speller a superior being or an inferior one? What should be the place of spelling in the school?" Many great men could not spell. In Luther's letter to the pope, *in*, *dan*, and *en* are spelled in different ways, and Schiller says that even Goethe committed "errors that would lower a *quintaner's* mark." Frederick the Great, Blucher, etc., often spelled phonetically, inconsistently, or wrote as they spoke and dialects varied. Who is infallible here? Certainly present methods are bad. Our language is illogical to the last degree, and it is certain that intensive work in some cases may cause marvelous improvement. Is there any real betterment possible short of throwing ourselves unreservedly into the arms of the phonic spellers, or even taking the more desperate step of seeking refuge in one of the reformed and New World languages that have been invented?

Rice,[2] in studying the schools of twenty-one American cities, found from ten to fifty minutes per day devoted to spelling. McKay [3] found from twenty-five to forty-seven per cent of the whole study time at home and in school for the first six years devoted to spelling. Lay makes it an hour a day in Germany for eight years, a time equal to that given to several other studies combined, for the German child must learn eight alphabets, the German and Roman, large and small, printed and written. After printing had standardized spelling, it slowly came to be one of the chief subjects, and in the early part of the century words of twelve or fourteen syllables were not uncommon. One writer calls spelling "a frightful judgment of divine wrath," and another thought it "a greater evil than the burning of witches and heretics, a greater crime than the rack and all inhumanities taken together . . . it is child torment and child murder." Up to 1885, according to Burnham's excellent article,[1] 65,000,000 copies of Webster's speller were sold, and yet Dean Briggs, of Harvard, says, "we have boys, men, teachers, professors who not only cannot spell, but have a mean opinion of spelling." Burnham, who gives a concise summary of the chief experimental researches into the subject since Stricker (1880), showed that besides sight and hearing, the hand muscles played an important rôle. For years pedagogues and experimenters laid chief stress now upon the work of the ear, now the eye, now the mouth, now the hand. The psychology of spelling now recognizes fully that each of these is a modality, playing a rôle of very different prominence in different individuals. The experiments of Lay,[2] Schiller,[3] and others indicate that the value of the different methods of teaching spelling are somewhat as follows: (1) Best of all comes copying with speaking softly, (2) copying with speaking aloud, (3) seeing the writing movements, (4) oral spelling, (5) seeing with speaking aloud, (6) seeing with speaking gently, (7) seeing alone, (8) hearing with writing movements, (9) hearing with speaking aloud, (10) hearing with speaking softly, (11) hearing alone. Thus, sight is a far better aid to spelling than is hearing. In both, errors are decreased when these senses are reënforced by speech or by writing movements. When the pupil hears without making speech movements, as in dictation, the number of errors are greatest, so that, according to Lay, his seeing excels hearing two or three times. Copying is twice as valuable as spelling or reading and six times as valuable as dictation. His thought is that by mere hearing of words pupils learn least of spelling. Other experiments have shown that while good memory generally goes with spelling, the latter is more or less independent of memory in general. The experimental studies certainly show the great importance of visual and motor images. Experimental studies in this field like those of Wyckoff,[1] which show that there are constitutional bad spellers, of Witmer,[2] Smelley,[3] and Carman [4] have shed a very important new light, but the problem is not yet entirely solved. Again, many estimates have been made as to the number of words that children use at different ages. Kirkpatrick thinks that the child of twelve is acquainted with from 7,000 to 10,000; Johnson, that those below the high school get on with 6,000; Bell, that the child of five from a good home has far larger vocabulary than we have imagined. It certainly seems an obvious commonplace that spelling would focus upon the words most often used. The copious literature on children's vocabularies could certainly shed light upon the words with which spelling should begin, although as yet we know little of the vocabulary of children by grades. Several studies have shown the rather startling result that there was little or no difference in the spelling of pupils whether they had had special instruction or whether this had been omitted for two or even three years, and that of course indicates that spelling is a function of age and general development rather than a result of special training. The irrationality of English spelling consists in its pernicious interferences of associations which occurs where a word or syllable with precisely the same sound is spelled in different ways.

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[1] Ed. Rev., Jan., 1900, Vol. 19, pp. 49-58.

[2] The Futility of the Spelling Grind. Forum, April and June, 1897.

[3] Three Great Reforms. How May We Hasten Them? Dominion Ed. Assn.

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[1] The Hygiene and Psychology of Spelling. Ped. Sem., Vol. 13, No. 4, Dec., 1906, pp. 474–501.

[2] W. A. Lay: Didaktisch-psychologische Experiment Rechtschreiben und Rechtschreiben-Unterricht. Zeits. f. Päd. u. Psy., Vol. 2, p. 95.

[3] Hermann Schiller: Studien und Versuche über die Erlernung der Orthographie. In Samm. v. Abhand. aus dem Gebiete der päd. Psy. u. Phys. Bd. II, Heft IV, Berlin, 1898.

Probably homonymous words should not be presented simultaneously, for they require distinctions which the child is not yet ready for. Burnham concludes that most spelling should be given incidentally and that special instruction in it should not begin before ten or twelve and that fifteen minutes a day is ample, that there should be some regard for individual differences, that while many methods may be used, the copying method with its visual motor images is best, that errors should be avoided rather than corrected, that spelling does tend to develop the observation of small differences in words but is valueless for general training.

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[1] Ped. Sem., Dec., 1893, pp. 448–451.

[2] School Journal, Sept. 12, 1896.

[3] Comm. of Ed. Report, 1903, Vol. 1, p. 1137.

[4] E. Kate Carman: The Cause of Chronic Bad Spelling. Journ. of Ped., Vol. 13, 1900–01, pp. 86–91.

Thus laboratory experiments show wide individual differences as to the prominence of the various factors, visual, tactual, auditory, motor and back of all the meaning. Stricker found that if with closed eyes he thinks of a word, he does so in the speech organs, although the tongue may not actually move, and he found his results confirmed in one hundred others. Schiller insists that this is not the case with him. Egger[1] insisted that motor were entirely subordinate to auditory images in his case. Lay thinks that the essence of the word lies in the memory image of the movements of speech. Kussmaul thinks that the muscle feelings are indistinct but may be rendered very serviceable by practice. Ebbinghaus says that we can voluntarily determine a good deal as to which of these factors is made dominant. The various aphasias and agraphias suggest that all these factors play a rôle and that if any one of them is lost the whole speech fabric suffers. In view of all the practical difficulties involved, it is not strange that many have now turned to reformed spelling, for the trouble is inherent in all languages.

The present German orthography is the outcome of a long historic development, especially since the terrible confusion in it during the fourteenth century, the period of literary decadence, during which it can be truly said there was no literary language in the country. In the sixteenth century grammars arose that were mainly spellers on the precept "*Schreibe wie du sprichst*" and which made the language of Luther and the Imperial Chancery its models. After considerable clearing up, Grimm brought new confusion by his historical principle, which sought to conserve etymologies. After the War of 1870 serious efforts were made by several German states to reform spelling, and a conference was held at Berlin in 1876 for this purpose. Only lately has Germany had a uniform system of spelling under rules formulated in 1902. A more radical movement is advocated by the general *Verein* for simplifying writing, which has many thousand members and prints a monthly journal advocating approximation to phonetic ideals, but not entirely breaking from current usage or historic etymologies. Its motto is "*Eine Lust anstatt eine Last.*" A general German *Sprachverein* (1885), with 300 branches and 30,000 members, has now influence enough so that should it take up the matter of more radical reform it could give it great impetus.[1]

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[1] Victor Egger: La Parole intérieure. Paris, 1881. 320 p.

The report of Meyer[2] on French spelling shows that the chief obstacle to logical spelling is the inadequacy of the Latin alphabet to express sounds that arose later and the Academy claims a long list of spellings because they show origins. Meyer urges that the present spelling is unæsthetic, gives the printed page an ugly look, that reform will help perpetuate the customary pronunciation, and that the changes are no more radical than the introduction of the metric system. The French mind is essentially logical and does not scruple to consider possibilities of far greater changes than are yet proposed in this country.

The French movement toward simplification, as everywhere else, had many early prelusions; the 1762 edition of the Academy's dictionary proposed simple spellings for 5,000 words, or 28 per cent of all it contained. They accepted the precept that a fixed language is dead. The Higher Council of Education published a very important report by Professor Meyer in 1905. This commission disagreed with the Academy, and a second commission was appointed and its report by Brunot deals with the question whether a national language can be the subject of administrative interference. Spelling, he urges, is not the language, but is a medium of exchange; he even urges a spelling that shall actually represent the average spoken sound. The worst thing about the present inconsistencies is that they teach children to be illogical. He makes a table of from six to twenty words in which each sound of the language is now written and suggests modifications of these. His view is thought by many extreme, and there are those who hold with Gebhart that to write the word "rhinoceros" without the "h" would be to take the horn off the animal and make him a sheep. The stagnationists, as the radicals call them, are very strong in France, and not a few literary men think that the very physiognomy of lines of poetry would lose one of their chief charms if the spelling were changed.[3] The French

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[1] See R. Tombo, Reform of German Spelling. Educ. Rev., 1907, Vol. 34, pp. 157–174.

[2] Which is described and partly translated by Brander Matthews, The Simplification of French Spelling. Pop. Sci. Mo., 1906, Vol. 69, pp. 539–544.

[3] C. H. Page, Simplification of French Spelling. Educ. Rev., Sept., 1907, Vol. 34, pp. 151–156.

Academy is naturally somewhat conservative, but it was Briand, the Minister of Public Instruction in 1906, who took strong ground against the grammatical socialism of Brunot and refused to introduce his suggestion into the schools and insisted that earthquake reforms were out of the question in France, that they were too complex to be introduced save as Skeat urged, "Here a letter and there a letter."

In America the active spelling reform really began with the celebrated pronunciamento of President Roosevelt, authorizing in the Government Printing Office changes in the spelling of certain words, and the grant of Andrew Carnegie, which created the Simplified Spelling Board. When English was spoken only by a few million inhabitants of the British Isles, the situation was very different from now, when it is spoken by 130,000,000, or more than all those who speak German, French, and Italian together. English bids fair to be the language of the future, as French did two hundred years ago and Latin was two thousand years ago, says Brander Matthews.[1] English has sloughed off its grammatical terminations, so that it is well on the way toward being grammarless, but its orthography still marks it as strangely inferior, with spelling that is "wasteful, archaic, and ridiculous." The Board simplifies chiefly by the omission of useless or silent letters. It seeks to make English a fitter instrument for those who use it, to teach that there never was any general agreement as to English spelling or any authority, that there is now divided usage regarding hundreds of words. Active as the Board has been, there are really but few of its many recommendations that have come yet into common usage. Preterites and past participles are still spelled with "ed" and not with "t"; double letters that are needless are still used, and there is double use of letters both as surd and sonant. Terminal silent "e" still lingers. It is perhaps not sufficiently understood that spelling reform is not necessarily and does not aim to be phonetic.[2] The very copiousness of our language, the multiplication of books and newspapers, and the increase of reading give a conservatism that is the strongest obstacle to radical changes. Public documents might for years follow all the recommendations of the Board, and little impression would be made. The only real appeal is that made to the rising generation, where the soil is still virgin. The arisen generation cannot adopt reforms;[3] but teachers are conservative, and so far very little impression has been made upon them, while only a few monthly journals have introduced some of the most obvious reforms. No matter how highly trained expert opinion may be and how authoritative, association, sentiment, and the continuity of tradition are hard to overcome. We admit that the real life of a language "consists in its sounds and not in the signs intended to represent them." The havoc of our present system of spelling is that it is utterly inconsistent and brings reason and analogy up with a jerk. The "h" in "ghost," the "l" in "could" are unreasonable. Even phonic spelling would allow ample scope for individual and even dialectic variations in pronunciation. The new spelling would not make existing books valueless, even if they should in centuries come to be regarded as we regard Chaucer. Again, during the progress of its work, the Board advised certain specific changes and left others that logically followed from them unadopted, and this necessary but temporary inconsistency has been made the butt of much criticism.[1] Much is said of spelling reform on the ground of the conservation of energy.[2] Not only has orthodoxy in spelling always had its limitations (and there has always been large personal liberty for those who desire to spell according to their taste, and even fashion has had its influence), but the waste of labor involved in teaching spelling is prodigious. We must not expect, however, that the community will adopt more than a few words at a time. We must, however, undermine the factitious respect for conventional spelling which is really strongest in those whose education is so imperfect that they have to tiptoe up to this documentation of it, which they cannot afford to lose. Our oddity of spelling would seem ridiculous, like that of comic writers who affect fantastic words, had we not become so accustomed to the incongruities of our language. It is indeed hard to get used to "tho'," "thru'," "prest," "phizix," "kist," but it is really the correct modes and not these that are strange.

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[1] Simplifying our Spelling. Ed. Rev., June, 1906, Vol. 32, pp. 14–20.

[2] C. W. L. Johnson: Must Spelling Reform necessarily be Phonetic? Ed. Rev., Dec., 1903, Vol. 26, pp. 516–525.

[3] T. R. Lownsbury, Confessions of a Spelling Reformer. Atlantic Monthly, 1907, Vol. 99, pp. 614–631.

Mr. J. S. Clark[3] describes the results of a special investigation of 3,000 graduates of over 200 preparatory schools as to their ability to spell, and he found only two or three of the words included in the first test list of 300 by the simplifying committee were habitually misspelled. This would indicate that simplified spelling has not so greatly relieved the strain as is often represented. Clark also found that in a test with 150 words, 60 per cent of the freshmen failed in more than 20 of these words and so had to be reduced to "the pity sakes class."

If spelling reform is right, educators have certainly been remiss.[4] Consideration for the children demands that our abnormal spelling receive the attention of school boards and principals. There really ought to be a little book adapted to the needs of elementary schools with simplified forms given of the words children most commonly use and which are most outrageous. Indeed, there are a few boards of trustees that have authorized the use of simplified forms in correspondence for certain lists of words. This, at least, has tended to shake fidelity to standards as a kind of fetich, but it is, of course, hard for teachers, who have been for so many generations accustomed to lay great stress upon correct spelling, to suddenly change their methods.

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[1] See H. H. Ballard, A Modern Babel. Ped. Sem., Vol. 14, pp. 305–321.

[2] See W. LeConte Stevens, Spelling Reform and the Conservation of Energy. Pop. Sci. Mo., 1907, Vol. 70, pp. 265–273.

[3] See The Nation, Nov. 8, 1906, Vol. 83, No. 2158, pp. 390–391.

[4] See H. H. Seerley, The Attitude of the Leaders of Public Education toward Simplified Spelling. Ed. Rev., Sept., 1908, Vol. 36, pp. 180–189.

H. Ballard[1] certainly convicts the spelling reforms of either ignorance or duplicity in declaring that they had no intention of anything revolutionary or far reaching, and shows that their list of 300 words (Circular 6) increases instead of diminishes the modern confusion. If three words ending in *ough* are changed, why not all the rest, so of those where final *ed* is changed to *t*. Certainly the inconsistency of our spelling has been on the whole increased, and little has been done to remedy the evil that is said "to keep our children one or two years behind the children of Germany." It is no wonder that many members of the committee dropped off as it became more and more apparent that the spelling reform as begun cannot be complete till our language is reduced to an essentially phonetic basis. It is rather doubtful whether the reform program was sufficiently planned beforehand. Now there is no alternative except to retract or allow the movement to lapse or stand still or else go on to the end. Of the 1,180 names in the gazetteer, those which are geographical and begin with the word *new* and the thousand names of persons that begin in the same way will be hard to change to *nu*. Catalogues and types will have to be remade. We may not have to respell on our tombstones, *e. g.*, "tu mi muther," but what about the 2,000 words of disputed pronunciation in the standard dictionary and what of the dialetic question and geographical names? It is no wonder that the Carnegie reform has given great encouragement to more ultra phonic reform and to those who advocate a new international alphabet, the idea being to find out how many sounds there are in each language, then to provide an equal number of letters and no more than are needed to express identical sounds by identical signs and similar ones by similar signs and use in diacritic marks only the Roman alphabet, and to depart as little as necessary from existing methods. The phonic campaign seems now first a provisional and then a definitive alphabet which can also be a key to other languages and which will insist on universal and uniform spelling and perhaps beginning with this in the school and later passing to the world spelling.[2]

As to artificial, international or world languages, these have been many. Delgarno (1666) and Wilkins (1668) claimed to rest their systems on logic and connected them with pansophic dreams of the standardization of human knowledge. The philosopher, Leibnitz, took deep interest in this project. Brugmann[1] thinks there have been "many dozen" of these schemes for a universal language. Some of the best known of these were the Novelatin, Lingua Balina, Interlanguage, Pasilingua, Lingualamina, Volapük (vol=world and pük=speech), Esperanto, "the tongue of new hope," and, now most collectively and authoritatively belabored of all, the reconstructed Esperanto called Ido, or Ildo. Volapük,[2] invented by a Catholic priest, Schleyer, had its high tide about the time of the Paris Congress of 1889, when it was cultivated by 2,500,000 people, had 289 organizations, 28 journals, and considerable literature was translated into it. Even philologists considered it very seriously and seem to have regarded it as a coming new dispensation, but the author and his conservative friends refused to submit the language to the revisions that were increasingly demanded so that the more progressive adherents deserted and the bubble burst. Still other languages were proposed, e. g., Cosmos and Spelin (the latter with no relation to spelling, but from a root meaning an inter-language). Both originated in 1888, Myrana in 1889, Lingua Internationale in 1890. Esperanto, devised by a Polish physician, Zamenhof, now claims over 100,000 adherents and held its sixth International Congress at Washington in August, 1910, with over 1,300 delegates. It claims to be the quintessence of European languages. Ivy Kellerman thinks that one who learns it has obtained a "vocabulary of international roots which lessens by fully 75 per cent the number of new words to be memorized in any national language likely to be undertaken thereafter.[3]

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[1] Harlan H. Ballard, A Modern Babel. Ped. Sem., Sept., 1907, Vol. 14, No. 3, pp. 305–321.

[2] Robert Stein: An International Phonetic Conference. Ped. Sem., Dec., 1903, Vol. 10, No. 4, pp. 423–438.

One advocate says[4] "the grammar can be read and perfectly understood in an hour. The pronunciation is simplicity itself, as the letters have each but one simple sound and the accent rests always on the penult. Seventy per cent of the word roots may be recognized at sight by a person of good education in English alone." In many recent international scientific congresses, papers are presented in Esperanto. The London Chamber of Commerce and various commercial schools teach and examine in it. It is earnestly advocated for the grammar grades. In the fall of 1909 there were 111 courses in the evening schools of Paris.[5] It found favor with the Pan-American Scientific Congress, and is called a first step to other languages, simple, uniform, and with great richness of its vowel sounds, and one devotee says it is one hundred times easier than French or German. It sought to eliminate all that was incidental and differential from the chief European languages and to keep what was common so that nothing is invented. All sounds peculiar to one language are dropped. Spelling is phonic. A clever system of prefixes and suffixes indicates the part of speech.[1] It is urged that experience in local schools has already demonstrated that it ought eventually to be the first language which the children learn, and would serve as a key to others. Its advocate believes it capable of expressing all that any, if not that every, language can. A good Esperanto dictionary is a formidable work. Very few leading philologists, however, favor these reforms, but their advocates rely overmuch upon the endorsement of a few eminent scientific men who are not experts. Probably the drift of opinion is to await the slow selective processes by which some one of the chief modern languages may one day become supreme by reason of its intrinsic excellencies or by the expansion of the people who speak it. Thus Latin once became almost universal. Arabic spread over a large part of the Moslem world. French a few generations ago bid fair to be the language of the world, as English now does. The very conception of one language which all cultivated men and women of the world speak and write is of course, and for many reasons, a most inspiring idea, and it has long been one of the chief desiderata of the educational world. Possibly a large international committee of philologists might in time evolve a language that Aryan, or to take a more specific case, Teutonic or Romance peoples could profit by. The story of Ido especially indicates some tendency in this direction. But would not even this be a mongrel and degenerate product? The very desirability of a world tongue is so strong that cheap artifacts are seized upon. Surely none of these can ultimately prevail. Advocates of universality of weights, measures, money, uniform spelling and various other standards usually have a hard time, and there is as yet no universal alphabet or table of sounds. The musical sense, the Arabic numerals, and many letters have unique prominence on the scale of universality. But language is too complex and vital a structure to submit to much regulation. It grew rather than was made according to the current psychology of speech. The technical nomenclature of science commonly harks back to the classical languages and even the nonexact sciences cannot escape racial coloring. The problem of pedagogy in this question, it therefore seems to me, should be to leave aside these schemes, save for incidental attention by those with special interest, and to spend time and energy upon some chosen modern tongue. The world language may come with the millennium or with K. C. Gillette's world corporation, but not before.

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[1] Karl Brugmann: Zur Kritik der künstlichen Weltsprachen. Strassburg, Trübner, 1907, 38 p. Also, J. Baudouin Courtenay: Zur Kritik der künstlichen Weltsprachen. Leipzig, Veit & Co., 1908, 51 p.

[2] See the elaborate report on it of the American Philosophical Society in "Nature," August 21, 1888, Vol. 38, pp. 351–55.

[3] School Review, Feb., 1910, Vol. 18, No. 2, p. 124.

[4] The Problem of International Speech, by A. M. Roberts. Pop. Sci. Monthly, 1908, Vol. 72, pp. 153–168.

[5] School Review, June, 1910, Vol. 18, No. 6, p. 398.

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[1] A. Schinz. Esperanto: the proposed universal language. Atlantic Monthly, 1906, Vol. 97, pp. 77–83.

Handwriting has also lately received very special attention as is presented by a compact but precious body of laboratory investigations under controlled conditions. Bad spelling does not always go with bad writing. These studies found a voluminous literature and a large body of practical doctrine on graphology with numerous experts, wise and otherwise, in the field.[1]

Legal practice has accumulated a mass of suggestive special data concerning a great variety of matters connected with writing,[2] such as the value of expertness in judging it which ranks it low among the other classes of expert evidence, the range of variation in the type of penmanship as caused by moods, subject matter, age, etc., the accuracy with which tracing can be made, reproductive processes, imitations, the traits of disguised and simulated writing, advantages of seeing a person write, the effects of embarrassment in writing before others, the value of memory, the method of judging from the general appearance of the page, or the holograph as we identify faces instead of by a minute analysis of words and letters. Even signature by a mark or cross has its characteristic traits. There are formulæ for the detection of forgeries. Several identical signatures are rarely genuine. A disguised hand is very hard to sustain. The effects of the impairment of sight, too, are pretty well known.

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[1] Graphologie, by Rudolphine Poppée. Leipzig, J. J. Weber, 1908, 243 p. L'Education aidée par la graphologie, by Solange Pellat. Paris, Hachette et Cie, 1906, 206 p. Ueber Schreiben und Schreibbewegungen, by Mark Lobsien. Langensalza, Hermann Beyer & Söhne, 1907. 64 p. Lehrbuch für den Schreibunterricht nach physiologischer Methode, by R. Händler. Dresden, Alwin Huhle, 1906. 104 p. Ueber die Grundlagen des Rechtschreibunterrichts, by Mark Lobsien. (Zur Pädagogik der Gegenwart, Heft 11) Dresden, Bleyl & Kaemmerer, 1900. 49 p. Der Psychologische und Pathologische Wert der Handschrift, by Magdalene Thumm-Kintzel. Leipzig, Paul List, 1904, 208 p. A. S. Osborn: Questioned Documents, Rochester, N. Y. Lawyers' Co-operative Pub. Co., 1910, 501 p. Very interesting, too, is the pedagogy of writing which usually goes with articulation for the feeble-minded, for synopsis and literature of which see Pfarrer K. Schips. Der erste Schreiblese-Unterricht bei den Geistesschwachen mit Berücksichtigung des Artikulations-Unterrichts. Separat-Abdruck aus: Weigl, Kurs f. Heilpädagogik und Schulhygiene. 84 p.

[2] Charles Church Moore: A Treatise on Facts, or, the weight and value of evidence. Long Island, E. Thompson Pub. Co., 1908, Vol. 1, Chap. XIII, pp. 604–726.

Schuyten studied the graphology of school children by a method of greater exactness than has hitherto been developed. The matter to be copied was written by the children on unruled paper from copy on a revolving drum. To these results, minute measurements were applied which gave the following conclusions: The children's lines were shorter at the commencement of the test. The older and retarded children wrote shorter lines than those younger and more advanced. The letters of the older children were shorter. The last half of the manuscript occupied more space than the first. Older children take less space. The total surface of paper used by the youngest children is less in the second than in the first half of the manuscript. The length of the lines becomes gradually greater through the first eight groups of eight lines each and remains near this length up to the sixteenth group. Near the end of the manuscript the amount of blank paper increases.

Writing doubtless has national, family, and individual characteristics, and is greatly modified by fashion, sex, age, culture, and insanity. It is surely affected, too, by fatigue, emotionality, and many other things, although preposterous claims have been made for it by pseudo-graphologists. The degree of attention versus automatism constitute also important factors. Like voice, gait, gesture, it is a great revealer of states and mental and physical makeup generally, possibly often of circulation and metabolism. Binet,[1] Downey and others have shown that sex can be determined with only a rather small percentage of error, and that this and various other of the above traits can be diagnosed by many untrained observers nearly as well as by experts. The nature of the subject of, for instance, a letter, or the character or position of the person addressed makes a difference. Laboratory experimenters have investigated, and by ingenious methods recorded the speed of the pen in the up and down, lateral and curved movements and reversals and the pauses, have measured the changes of pressure, determined the component of movement due to each finger, the thumb, wrist, and arm, have studied writing in light under control of the eye, in darkness when this control is eliminated, in the focus of attention and with distraction, with oral reënforcements and without them, and German studies seem to have shown that hard mental work increases pen pressure, at least with men, and lessens it, especially with women. Attention dwarfs or enlarges the letters. The automatic motor type responds to distraction by bigger letters, while one who keeps more conscious volition (the century type) writes with smaller letters or with inhibition. Graphic as well as linguistic lapses are also of great new significance. The errors of the visual minded differ from those whose images are chiefly auditory, and the motor type has also its traits, for by conducing or eliminating light and sound elements, by writing in constrained positions, using mirror script, and writing with both hands such analysis can be made. Mirror script pretty effectively eliminates the visual elements. Again, a tendency to run above or below the horizontal and still more a centripetal and centrifugal tendency are thought by many to be highly indicative of character, the former indicating vigor, honesty, generosity, and the latter opposite traits. The degree of variation from the vertical is also significant. Experimental graphology should doubtless begin with pathological specimens, for here variations are great and significant. Dual personality often expresses itself in two scripts, and drugs also affect it. Thus, while writing cannot exactly be called written gestures, it reveals very much, and graphology is to some extent being rescued from the pseudo-scientific stage in which palmistry, e. g., still lingers. This embryo science has, however, not yet evolved its pedagogic facet, precious and normative as we may hope that it will some day become. Hence, I pass it briefly here, adding a few references which may serve to open its literature to those interested.[1]

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[1] Alfred Binet: Les révélations de l'écriture d'après un controle scientifique. Paris, Alcan, 1906, 206 p.

If and so far as individuality should express itself in handwriting, the vertical script movement is to be criticised, for it is antagonistic to this tendency, for the erect, round, open script it cultivates, lacks individuality, and to that extent approximates the uniformity of print, or the old uncial writing in capitals. No doubt, too, it tends not only to throw the movement up the arm from accessory to fundamental muscles, and so far it is well, for this is best as the first stage, but so far as it tends to keep it there it is detrimental. Hence, despite all the ingenious arguments in its favor from the point of view of the hygiene of movement and of calligraphy, the heyday of the movement is now passing and more individuality is appearing and earlier in the grades. The prevalence of typewriting in manuscripts and even in letters favors ready reading, but in addition to this, it has caused growing impatience with the wide varieties of handwriting, especially on the part of those with large correspondence and of typesetters, impatience with idiosyncratic styles, and even inability to read writing with marked peculiarities has doubtless increased. Thus, higher demands are now made upon those who persist in the use of handwriting. It is significant, too, that this tendency increases the popular and growing impatience at the unquestionable deterioration in the penmanship of school children, the causes of which are now receiving great attention.

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[1] Physiologie de la Lecture et de L'Écriture, par Émile Javel. Paris, Félix Alcan, 1906, 296 p. L'Écriture et le Caractère, par J. Crépieux-Jamin. Paris, Félix Alcan, 1896, 468 p. Les Révélations de l'Écriture d'après un controle scientifique, par Alfred Binet. Paris, Félix Alcan, 1906, 260 p. Les Écrits et les Dessins dans les Maladies Nerveuses et Mentales, par J. Rogues de Fursac. Paris, Masson et Cie, 1905, 306 p. Die Schrift bei Geisteskrankheiten, von Rudolf Köster. Leipzig, Johann A. Barth, 1903, 169 p. Control Processes in Modified Handwriting; an experimental study. By June E. Downey. Monograph Supplement No. 37 of the Psy. Rev., 1908. (Univ. of Chic. Thesis, 1905), 148 p. Preliminary Study of Family Resemblance in Handwriting. Univ. of Wyoming, Dept. of Psy. Bull., No. 1, 1910. Researches on Movements used in Writing. Studies from Yale Psy. Lab., Vol. 8, 1900, pp. 21–63. Genetic Psychology for Teachers, by C. H. Judd. N. Y., D. Appleton & Co., 1903, 329 p. See Chaps. 6 and 7, The Teacher's Writing Habit and Racial and Individual Development in Writing. Best Movement in Handwriting. Science X, p. 679.

There can no longer be any doubt that one of the chief causes of bad penmanship is found in stressing it too early, although we need not perhaps go so far as Patrick,[1] who would delay it until the eighth or tenth year. It should, of course, begin large and with shoulder and elbow movements, so that air writing has its place. It should then come down to wrist and finger movements, as the letters diminish to their permanent adult size. Probably in air and even in blackboard writing the left hand writing simultaneous mirror script sometimes helps control. At first, attention must all be focused upon the formation of each part of each letter. The eye must constantly be both guide and review, so that its norm as to distance and binocular symmetry should be observed, for the visual and imagery side must be maximized. Motor control, too, must be intensive and unremitting, but, of course, not crampy, and probably the oral innervations and perhaps silently pronouncing each letter spelling-wise aids. Now all these factors cooperate, as is abundantly seen in the elimination experiments with adults, in whom it appears there is also great difference in the preponderance of these factors with different mental types. This appears also in the study of the agraphia and paragraphia and all other types of mental alienation, to say nothing of the light thrown upon the factors of the reading complex by graphic and other relation to vocal lapses. Writing, too, came very late in the racial evolution and it should be preceded by much manual development, so that any kind of control of hand work and every sort of dexterity helps.[2] Without much development here, precocity and forcing are sure to do their disastrous work. That present school practices do this in a wholesale way and to a calamitous extent which all the practice of later life often fails to correct is certain. Calligraphy is a very specialized, accurate and intricate process, and habits once established are almost ineffaceable. We must start from a clear and relatively uniform and thoroughly well established and reasoned norm, determined point by point for each letter and thus with uniformity. Then slowly, as the process of writing becomes automatic, as it does gradually, element by element, and rapidly increases, individual differences will and should appear and should be allowed ample scope in order that writing may be free, easy and natural. Young people, especially girls, tend sooner or later to adopt consciously some style of script that they have seen or conceived and that is pleasing to them, largely on æsthetic grounds, and in this their own individuality comes to a focus. Affected though these styles sometimes are, and imitative as they are more apt to be, these tastes should be encouraged and not repressed, for their indulgence gives zest, and usually, after all, it is only in matters which graphology finds to be very rarely fundamental but essentially superficial. These departures from the original uniform norms are thus usually in the direction of both increased facilitization and efficiency of effort, and they also add a certain refinement of taste to writing and make it more personal, vital, and thus cause it to really communicate more of the writer to the one addressed. I cannot think, therefore, that the elimination or even the reduction of all this, or the efforts of pedagogues to have all pupils approximate a single norm, are in the real interests of writing, even if they do aid the reader somewhat. As setting up drill and physiological modes of walking and marching are established in army drill till each member of the regiment moves with mathematical uniformity has its place, but as all members of a corps should not be required to march always thus on the street, so handwriting should start with the most hygienic norm, but should be encouraged to deviate freely from it later.

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[1] G. T. W. Patrick: Should Children Under Ten Learn to Read and Write? Pop. Sci. Mo., Vol. 55, pp. 382–392.

[2] J. H. Leuba and W. Hyde: An Experiment in Learning to Make Hand Movements. Psy. Rev., 1905, Vol. 12, pp. 351–369.

For children who have acquired some facility in writing, the subject matter and their interest in it has great significance. Writing slows down the impetuosity of thought and its pace is also vastly slower than oral speech. Hence, it is not strange that a high degree of interest in the theme often tends to make writing precipitate and this haste brings great slovenliness. On the other hand, the very slowing down of the process of expression which writing necessitates compels reflection, choice of words, phrases, and a deliberation which normally results in the better structure of the sentence and in more affective utterance, so that composition work, even upon absorbing themes, should bring poise and control. Although we have no experiments as yet upon this subject, it would seem, therefore, that one goal should be to combine vivid and absorbing interests with the executive act of writing in such a way that each will help the other. If there is a conflict between the spelling and writing consciousness and genuine zest, it seems clear that the latter should have the right of way.

Within recent years, a number of German gymnasial teachers have been pleading for a new type of theme or composition writing for children of from eight to twelve. These men (Boch, Wendt, Geyer, Sprengler, Lange, and Valentenir)[1] insist that eight- to twelve-year-old children must practice composition of a far more naïve kind than hitherto, with little regard for style and spelling. The topics found most successful for these children are animals and plants, toys, daily events at home, in school, and on the street, pictures, Märchen, etc. All these are personal experiences, and are written with a vivacity which in an adult writer we should almost call genius on such topics as hunting and killing a rat, a tame lizard, my magic lantern, how father and I made a balloon, our Indian plays, my dream, if a comet hit Bremen, a ghost story, an excursion.

The children of Westfield, Mass., 244 in number, wrote a composition on a tame crow that had long been known to them about town. The result showed the humane instinct very strong early in life; also an intense interest in animals. Boys told more stories and more diverse ones than girls about the crow. The latter more often thought the crow was fond of them. Nearly a fifth stated that he could not talk because his tongue had been cut, while others thought he could do so. The description girls gave him was better than that of boys. The controlling idea which underlies this movement is that if children do not begin composition work until the dawn of puberty the difference between oral and written style is confirmed and the latter has become artificial and conventional, while the fresh, original spontaneity of children, if it can really be evoked, is tapping life just at that point when the nascent period of self-expression is at its height, so that although the form of expression is feeble and its contents trivial, the highway between that and expression is by this method opened betimes. The main difficulty here is lest the child should be made overconscious by its mistakes in orthography, grammar, and the method of obviating this is to call no attention to these, save in the most incidental way until after the habit has been more or less established.

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[1] Der Deutsche Aufsatz in Sexta und Quinta, Bremen, 1910. See also Nagy, Die Entwickelung des Interesses des Kindes. Zeitsch. f. Exper. Pädagogik, 1907, Bd. 5, S. 198–218. Also H. Scharrelmann, Im Rahmen des Alltages. 800 Aufsätze u. Aufsatzthemen f. das 1 bis 5 Schuljahr. Jannsen, Hamburg, 1905.

According to the last census, in 1900, the percentage of illiterates over ten years of age in this country ranged all the way from 2.3 per cent in Nebraska which led, to 5.9 per cent in Massachusetts, the twenty-fifth state, and ending with Louisiana, the forty-ninth, with 38.5 per cent—all this as against .16 per cent in Prussia. Among this large number who cannot read or write must, of course, be counted the feeble-minded. Most of the rest could doubtless have learned with fair opportunity, despite the intricacy of the process, for it is after all not so difficult as many other kinds of skill very commonly acquired. Very many men have lived and died and been great, even the leaders of their age, without any acquaintance with letters. The knowledge which illiterates acquire is probably on the whole more personal, direct, environmental and probably a much larger proportion of it practical. Moreover, they escape much eyestrain and mental excitement, and, other things being equal, are probably more active and less sedentary. It is possible, despite the stigma our bepedagogued age puts upon this disability, for those who are under it not only to lead a useful, happy, virtuous life, but to be really well educated in many other ways. Illiterates escape certain temptations, such as vacuous and vicious reading. Perhaps we are prone to put too high a value both upon the ability required to attain this art and the discipline involved in doing so, as well as the culture value that comes to the citizen with his average of only the first six grades of schooling by the acquisition of this art.

When we reflect how long it took the race to invent script and printing and realize the many intricate stages by which all the processes involved were developed historically, and when we learn again from analytic laboratory psychology how complex all the processes are, it seems almost a marvel that children learn it so quickly and easily, even with the worst methods of teaching, and the question may naturally arise whether the experience of the relatively few generations of readers through which we have descended may not have contributed some degree of facilitization. There is, of course, no answer possible to this problem. Wits have suggested that as the inheritance of stressed qualities gets in its work ever earlier in the individuals as generations pass, the time may come when children will be born with ability to talk and that yet later they may learn to read and write by innate and untaught instinct. Now, perhaps, too, familiar acquaintance with the experimental laboratory work on the reading processes may tend to make elementary teachers feel that read-writing is harder than it really is for children, and also incline them to hyper-methodical teaching. We must not forget that for school work both processes are arbitrarily and utterly without reason and so must be inculcated chiefly by pure mechanical drill and incessant practice with little attempt at explanation. It comes by blind habituation in which even logical arrangement of steps has only a rudimentary place. Learning to read and write, however we look at it, is thus an almost purely mechanical product of drill, with almost nothing rational or even educational about it. Teaching it is a breaking-in process. Save historically (which is a far cry for children) there is no reason why one letter should represent a given sound any more than any other. A Morse code, numbers, pictures of the hand in making the deaf mute alphabet, or any other form of letter, e. g., Arabic, a cypher would be no more and no less reasonable. Hence most time spent in explaining is lost and in fact usually worse than lost, for it is far-fetched and adds to the confusion in the child's mind. *Per se*, too, it is anti-educational because it does not develop but constrains both sense and mentation. But for the content to be got at or imparted by mastering the process, the necessity of read-writing would be an almost unmitigated curse to the human race. It is a psycho-physiological absurdity. All is form, capricious and fantastic, and there is no content. It is almost literally mind-breaking, as we break colts to the harness that they may by its use render more valuable service. Hence the less we appeal to consciousness the better.

It may be a precious lesson in docility, like a somewhat brutal initiation which must be patiently endured, not to say zealously gone through for the sake of the vast benefits to come from membership later. When the habituation is complete the processes become unconscious anyway, and the attainment of facility with children will come easier if all its stages are kept well in the background. If the teacher followed a fully perfected method which involved a logical sequence of every step that scientific analysis reveals, it is doubtful if any pupil could ever learn to read or write. Happily in teaching we have a mass of unconscious activities on our side and so in a few months of even clumsy work proficiency comes stealing in upon the juvenile soul if practice is only incessant and unremitting enough. Hence when the stage of read-writing comes, the child must be kept at work, spelling, pronouncing, using pen, pencil or chalk, pausing only to avoid working with a dull edge of fatigue, and we may safely trust the marvelous, plastic power of adaptation and assimilation of the child to do the rest. The real benefits of the art slowly dawn upon the soul when the act has become so secondarily automatic that it can be forgotten and attention be given solely to the subject matter. Its assimilation is true reading and all else is only the whir of the machinery and not the work it does. As adult experts are able to dissect the functions of eye-, hand- and mind-work involved in aphasia and agraphia in their manifold forms and understand how many elements and centers, all more or less independent of each other, coöperate harmoniously in the act, they often wonder how they could ever have learned to play so complex a symphony. Had all this knowledge that experiment and clinical pathology have given us been acquired beforehand, they might never have been able to do so. But happily they were ignorant of all lecto-graphology when they acquired the art. The chief practical result of all this research, however, bears not so much upon the pedagogy of reading as on easing the strain of eye, hand, and mind in subsequent practice, and here their value is very great.

The men and women of coming generations ought not to be saddled with an inheritance of short-sightedness, nystagmus, with jaded retina or eye and hand centers, or with strained neuropsychic intellects. Man was made for the open, to use all his larger muscles and work his whole body and brain, and to focus too much upon the tiny pen-wagging muscles spells degeneration. So, too, of the eye. It was made to look far and near, up and down, right and left, over a wide area, to see nature, follow motion, find food, game, treasures, to avoid foes and other dangers, so that to zigzag monotonously over the printed page puts a great strain upon it. Liability if not to writers' cramp at least to abatement of perfect control over exact and fine movements required in writing is inevitable, and glasses, which limit both the lateral, vertical and accommodational range of clear vision, are dangers that become grave and general with a race overgiven to read-writing. Both tend to limit the physical wholeness and the symmetry of human nature. Hence every even tiny amelioration that makes the form of a single letter easier to distinguish from others most like it or makes the eye able to see it further off without its occupying more space, every modification of spacing for letters, words or lines, that gives greater legibility, every device of punctuation, length of line, size of type, color of ink as contrasted with that of paper, every improved calendering or glazing, and every capitalization, italicization, change of font, to say nothing of topical headings, inserts in the page, summaries and epitomes, chapter headings, captions, indexes, etc., all bring a relief that, slight though it may be for each, bulks large for many readers because it means so much for economic conservation of human energy. The psychology of advertising teaches us how print may actually allure. Is it not high time that all typothetes, experimental psychologists, and educators should get together to consider how best to save human powers from the grave and new hygienic dangers that threaten the very quality of the human race? It is not enough to supinely provide oculists but we must attempt something preventive to conserve the eyes of the rising generations, which all statistics indicate are in a state of progressive degeneration that no means have yet been put in operation to hinder. The best glasses for a child or youth are hardly less than calamitous, not only for the reasons above indicated but from the standpoint of expense, for they mean a financial mortgage, slight though it be, for a lifetime. Moreover, they can never atone for loss of normality of vision. From an æsthetic point of view they are a disfigurement and a grave handicap to many forms of youthful activity. They bar from a few vocations and in round terms involve in slight degree not a few of the disabilities of blindness itself. Oculists and opticians are not the final authorities here, nor are they always trustworthy, highly serviceable though their art be. I have personally known children who defied the doctor's advice to wear glasses and a little later came out all right with normal vision. These experts have imposed too narrow limits of normality, ignored the range of individual differences and especially the fact that it is a peculiarity of a certain stage of growth through which all children pass, that the development rate of the eyeball and its muscles and those of accommodation differ, and that there is a period of disproportion, after which, if let alone, at least with slight exemption from strain, all will right itself. Of course many poor children should have glasses who do not, but I am convinced that many in well-to-do families are needlessly saddled for life. An able, over-crowded profession is thus now sometimes a menace to the very function it would serve. Skill in detecting slight personal variations from the average and a subtle material interest in so doing may tend to give an unconscious bias to the most upright and honest man, as modern psychoanalysis abundantly shows. Hence it is high time that hygienists realized that although nature may show signs of many an abnormality and often does so in very many directions during the period of rapid and uneven growth, she is benign and will in the end correct herself and may be trusted to do so to an extent we have not yet fully realized.

The conclusions of Barrington and Karl Pearson,[1] which were deemed so revolutionary, are in accordance with this view. They indicate, as the table on page 448 shows, that normal vision or emmetropia increases up to about the age of ten, that girls are more astigmatic than boys and more variable, but that for both there is probably a slight reduction of astigmatism with age. The gain in emmetropia from the age of six to ten is chiefly due to the loss of the hypermetropic categories, and its partial fall again is due to a rise in the amount of myopia and myopic astigmatism and a hardly less serious rise in the hypermetropic astigmatism. Hypermetropia itself continues to fall and there is but little change after the age of eight in the mixed astigmatism. Keenness of vision also seems to increase, reaching perhaps a maximum at nine or ten in boys

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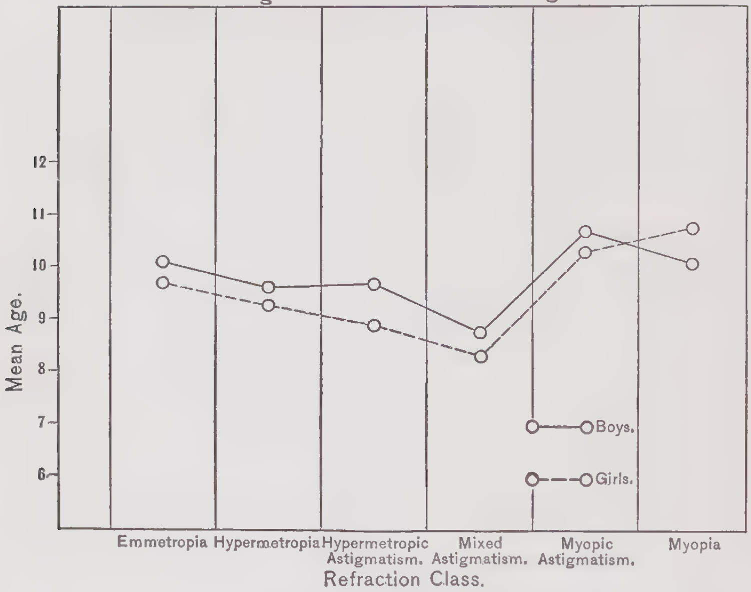
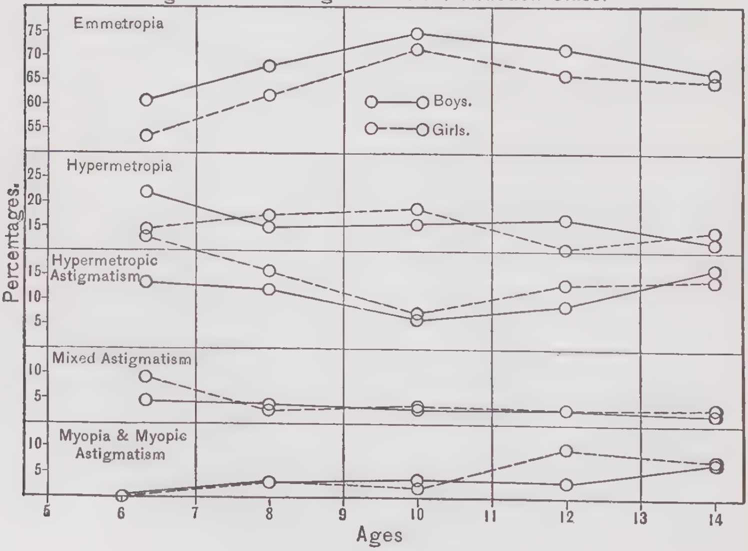
[1] A First Study of the Inheritance of Vision and of the Relative Influence of Heredity and Environment on Sight. Eugenics Laboratory Memoirs, No. 5. London, Dulau, 1909, 61 p.



Change of Refraction Class with Age.



Age and Percentages of each Refraction Class.

and declining but little afterwards, while with girls the increase in keenness seems a little less regular. These investigators also found, it should be added, reason to doubt the deleterious effect of school, but were quite certain that heredity plays an important rôle. " Undoubtedly considerable changes of vision take place during school years, marked first by a decrease in the hypermetropic classes and an increase in the emmetropic class. This is followed between ten and fourteen by a decrease in the emmetropic class and an increase in the hypermetropic, astigmatic and myopic classes; the balance being still in favor of emmetropia when school is left." Whether the first is a law of growth and the second an environmental effect cannot be definitely shown. Both may be only phases of the law of growth, viz., the passage from hypermetropia to emmetropia and myopia of the eyes of unstable stocks. The latter may be true because so many hypermetropic individuals have myopic siblings. This remarkable paper is a challenge, not only to oculists to take a larger view in their investigations including the whole social environment of the child, but also to trust to nature, which makes, if these data are correct, oscillations within the ranges of normality that they have not yet taken sufficiently into account.

True reading is thus taking in the ideas, sentiments, facts of the author as completely and as unchanged as possible. We must not only understand but accept for the nonce what he says, take his standpoint, feel and think with him, be passive, receptive, observe, accept and be certain that we are not ignorant of what he means. This is the standpoint of appreciation. No matter how different or even opposed to the reader's point of view a writer may be, he has, if read, a right to demand that we make the most sympathetic appropriation possible of all that he would convey. This is hard, and few readers attain it perfectly, and therefore few can in this high sense truly read. They scamp this stage and draw upon preconceptions to prevent hospitable reception of all that is new, or else they fail to comprehend, or glimpse only partially what the writer intends. The true reader, however, longs to be instructed. He wants other ideas and facts than his own. He is curious and in quest of what is unknown, of new sensations, it may be, or new thoughts, and prone to accept them by first intention, however remote and strange, if not, indeed, in proportion as they are so. Reading means discontent with our own kit of knowledge or circle of ideas. It is the mind's *Wanderlust* to see new countries. Only crude and undeveloped readers wish to read only what they already know or believe. Why should such learn to read at all if they get therefrom only confirmation of their own narrowness or reënforcements and countenance for their own limitations? To read thus means to profit by and to grow into the life experience of others by a subtle rapport ever widening over the vast areas of present and past culture of all great men in all ages.

Later, of course, and only later, comes the reader's critical reaction upon what he has read. This is the evocation effect, without which reading is incomplete. This may result in assimilation or in rejection. It means enlargement of our own individuality. This means the true attainment, of which the breaking-in of the mechanical act is only the type and symbol. This is the good end which must atone for and sanctify bad means to it, the edification which should vastly more than make up for the impairment involved in acquiring the knack of putting into words what the printed page says. To this we must now turn.

What to Read.—Having acquired the art of reading, the new question looms up, what to read. The whole intellectual world, past and present, is open. There are now new possibilities of degradation as well as of elevation. Many would doubtless be better had they never acquired this art, for only by its aid can the soul batten in viciousness that would otherwise have been impossible. Of all the goodness, too, in print, there are not only many varieties but a very long scale of degrees of excellency, and the teacher's problem is, now that the soul of the pupil can take its flights into bookland, to push him as far as possible up the scale of merit, selecting from the vast and many sounding sea flood of printed work the very best and endeavoring to lift the pupil above even the second best, for what is of first quality is so voluminous that it can never become known, even in a lifetime of the longest and most diligent work. Now, therefore, we teachers must guide, incite, provide, prescribe, allure by story, reading lists, display of books, by reading aloud, etc. Any up-to-date treatment of this subject must naturally begin in a survey of what children have to read and especially what they like to read, for here, as in feeding the natural appetite, is on the whole the best clue to what is most needed and can be best assimilated.

Charles Welsh[1] says no period in the literary history of this country is as barren and dreary as the 160 years which followed the landing of the Pilgrims. Still another century passed before any special attempt was made in England to provide literature of any kind for children. John Locke had recommended Æsop and "Reynard the Fox." Many English books came in later; in 1702 Thomas White's little book for children in which he exclaims, "How precious it is to hear a child praying as soon as, nay, sooner than he can speak." He gives many discouraging examples of the good who die young, e. g., a child of eight who wept and was inconsolable because he thought he had lied. Indeed, a good deal of children's training was not for life but for death, as if they were condemned criminals, and pathological piety was their cue. The New England Primer was of English origin. More than half of it is made up of the Lord's Prayer, the Creed, Watts's hymns, and the whole of that great catechism in which 125 divines spent five years in making. It ends with a dialogue between Christ, youth, and the devil. Almanacs were an early enterprise and contained much useful reading. "The Pilgrim's Progress" was first printed in Boston in 1681. A popular story was that of "a young gentleman who sold himself to the devil." There was much allegory. A woman with a dog, holding her train, is vanity. Miss Allworthy, Master Friendly, Thomas Careless are others. "Robinson Crusoe," "Gulliver's Travels," "Munchausen Tales," came in betimes as the Puritan influence grew weaker. Newberry and Oliver Goldsmith, however, mark a great epoch. Newberry was born in 1713 and died in 1767, and published over two hundred books for children that in mechanical execution were far superior to anything that had existed hitherto, and they really have a Goldsmithian style. He was a great believer in announcements and title pages which sometimes epitomize the book. He also invented and sold many medicines. Perhaps nine-tenths of the titles in any advertisement of children's books by any New England printer in the last half of the eighteenth century will be found in Newberry's catalogue. He understood unblushingly the art of puffery, preliminary, collusive, oblique, and by implication. Near the end of the last century children's books enter a new phase, though the time had not yet come for American authorship. These were the days of Miss Edgeworth, Sanford and Merton, etc. But everything was English. James was

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[1] Early Books for Children in New England. New England Magazine, n. s., Vol. 20, p. 147.

"Jem," not "Jim"; bad boys got through a gap in the hedge instead of by climbing the fence; stole redstreaks instead of baldwins; went to the alehouse instead of the rumshop; found larks and nightingales instead of yellow birds, bobolinks, and robins. The history of Sunday School books shows that, at first, they were very sectarian. The publishers, however, crowded this element out, and were very keen in excluding everything dogmatic. Later those were most in favor that had least direct religion. Prize books in the Sunday School, too, have gone out of use. The old-fashioned Sunday School book has vanished never to return.

Richard Burton[1] says that the phrase "Not facts, but ideals," is revolutionary. Intuitive emotional expressions can be received at a very early age, and it is precisely that which literature educates. It stands for the heart and soul side, for goodness can be appreciated long before it can be explained. Instead of the three R's, the new dispensation has the three H's—head, heart, and hand. Literature teaching should be ethical and inspirational rather than analytical. It is the power that makes for spiritual quickening. Boys like action, adventure, and run to what is sensational and even truculent, whereas girls like domestic and emotional literature. Few of the latter care for "Tom Brown," and few boys admire "Little Women." Mind stuff is not sexless, and puny man need not array himself against the laws of nature. We cannot put children off with the second best. "Oliver Optic," "Alger," and "Mayne Reid" are superseded, although "Robinson Crusoe" and "Water Babies" still survive. Moulton has edited a scripture without theology. No work is so charged with ethics, variety, and style. Perhaps many of us ought to memorize much scripture as Ruskin did. The pedagogic tendency to teach independence of speech rather than mechanical memory is now a danger to literature. First, objective literature impresses. Hence fiction like Scott and Stevenson is better than Thackeray or George Eliot. A child that loves Charles Lamb or Agnes Replier needs to be put out to grass in the country. The boy wants adventure and magic, moreover, and can be absorbed in Palmer's Homer if not told beforehand that it is a masterpiece. Prose for a time should have precedence over poetry, although here the sexes differ. To rightly purvey literature for little ones we must know them. Reformers always take their cue from the home, to the atmosphere of which they always seek to return. The home could do vastly more than the school in literature. It is far better to be a child now than ever before, for they are getting the garnered richness of the world.

Myth is of intense interest to young children, although Allen[2] found that only 13 out of 25 states whose courses of study he examined gave myth a place, and in these it varies from mere mention to a well-planned course; 6 more out of the 25 used fairy stories. Some opposed everything of this sort on the plea that we should not give our youth the worn-out ideals of the past. Myth is not only the mother of religion, philosophy, science, art, history, and poetry, but in the child all these are helped on in their incubation period by judicious teaching of myth, which is a groping of the primitive mind after truth. The best German writers devote a large space to this element, one of them giving 584 out of a total of 1,273 pages to it. The classic myths are often graded according to the age of the child as D'Ooge first attempted, or according to the nature elements, sun, moon, sea, wind, etc., which they represent.

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[1] Literature for Children. North American Review, 1898, p. 278.

[2] The Pedagogy of Myth in the Grades. Ped. Sem., June, 1901, Vol. 8, No. 2, pp. 258–277. Porter Lander MacClintock. Literature in the Elementary Schools. Chic., Univ. of Chic. Press, 1897, 305 p.

John C. Dana[1] then of the Denver Public Library, purchased three thousand volumes of supplementary reading and collected many opinions about it. Over 90 per cent of the seven hundred high-school children had library cards. One-third of all the books lent for home use were from the juvenile room which contained about one-fifth of the books for lending. Nearly half the daily visitors to the library were children. He believes reading stimulates interest for other things. Children the second year in school sometimes love to read juvenile books, and most teachers held that at least by the age of ten or in the third grade children could be profitably interested in reading. Perhaps much public library work is wrongly directed, and special efforts should be made to serve the children better.

Welsh[2] obtained 2,000 answers of London school children from 11 to 19 to questions concerning their favorite reading, which he tabulated. Dickens led with 223 votes, and 30 other writers followed, ending with Longfellow, who had 6 votes. In poetry "The Lady of the Lake" led; then came "Marmion," "Horatius," Gray's "Elegy," "The Charge of the Light Brigade," ending with "Hiawatha" and "The Curfew Bell." Without giving the details of this census, which, faulty as it is in method and unreliable in results, does show great differences between the reading habits of boys and girls, the author found that many girls' books are presents and not what the girls would select themselves. Moreover, there is evidence that the girls often voted for what they thought the most proper writer. The results here are almost too good, as if dominated by adult tastes. The omissions, too, of certain standard authors, show the unreliability of such a list.

Hamann[3] insists that at least special precautions be taken in both class and mass reading to avoid everything bad. He praises above all things myths and fairy tales, and particularly the German writers, Hey, Reinick, Castelli, Güll, Rückert, Rörster, and Löwenstein. The Märchen is the ideal quintessential culture that survives from the childhood of a race. To avoid such objections, however, as Oppel has urged against it, there must be some selection, but not too much. Herder well said that a child who never heard a fairy tale was developing a tract in his soul that in later life would grow barren. Frau Spyri's "Heidi" is particularly praised. Indeed everything truly natural is good, and this must never be forgotten.

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[1] See this and other interesting contributions in Report of Commissioner of Education, 1897–8, Vol. 1, p. 680.

[2] Reported in Juvenile Literature as it is, by E. Salmon. Lond., 1888, 243 p.

[3] Was unsere Kinder lesen. Sammlung pädagogischer Vorträge. November, 1891. Bd. 4, S. 121–136. Helmich, Bielefeld.

Wissler[1] tabulated what 2,100 children remembered and liked from the second to the fifth readers used by children from eight to fourteen years of age. There were many reading lessons that no children remembered. This is certainly a severe criticism upon the readers. Twenty-eight per cent of the lessons could have been omitted with little permanent loss. The first lesson of the readers, also continued lessons and long stories, and those in the terms of experience the child can realize in himself, took precedence of all others. There was also a marked growth of interest during these years in the poetic content which becomes especially prominent in the seventh and eighth years. Most numerous were the stories of daily life. Next came those of animals, and then followed description, moral precept, heroism, biography. Very little sex difference appears here and instruction has a small place. In the choice of books for reading 246 were mentioned. Here there were some marked sex differences. Fiction, however, led all others and embraced 53 per cent of all. Next followed poetry preferred by girls, history preferred by boys, biography and religion, science, travel, and humor. The boys showed far greater individuality of choice. Girls prefer niceness and rely upon recommendations. They are influenced more by sentiment. They greatly prefer stories about children, especially about girls. Few girls chose books because they were exciting, while excitement and adventure was very attractive to boys. Girls of this age seem more interested in their brothers than boys are in their sisters. For style a boy cares nothing, but he must have copious incidents and a hero. Many favorites with girls are almost unread by boys of this age.

Kirkpatrick[2] obtained answers from about 5,000 children from the fourth to ninth grade, asking them to list all and how much they had read a month, what they liked best, inside and outside the school work, what they proposed to read next, etc. Most teachers said that the widest readers were best in class work, while some said only in language work. The average number of books read and liked best or intended to be read was 7.21 each for boys and 8.27 for girls. The total average increased from 4.24, 5.8 in the fourth grade up to 10.18, 11.78 in the ninth grade. There was a sudden increase in the sixth when the children were about twelve, and cannot be entirely explained by increased facility.

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[1] Ped. Sem., 1897, Vol. 5, pp. 523–40.

[2] Children's Reading, Northwestern Monthly, Dec. 1898, Vol. 9, pp. 188–191.

In another article [1] Kirkpatrick shows that in papers and magazines children read with little definite purpose, although the school interest is the main guide. A few do not want to read any, and some will read all the books in the world or any they can get. Of all the books "Black Beauty" led, being named about twice as often as any other book, but a five-cent edition of this has been circulated by the humane societies and its reading is a requirement in many schools. Next in order came "Little Women," and "Little Men," "Uncle's Tom's Cabin," "Crusoe," Longfellow, "Lord Fauntleroy," "Old Curiosity Shop," and "Oliver Twist," "Seven Little Sisters," "Beautiful Joe," "Ivanhoe," "Lady of the Lake," "Bird's Christmas Carol," "Tom Brown," and so on. Longfellow is the favorite poet, Whittier next, but the latter has only one poem, "Snowbound," while Longfellow has three. Lowell's "Vision of Sir Launfal" does not stand high. It is spoiled probably by analysis and explanation, and its language is not simple enough. "Pilgrim's Progress" and "Vicar of Wakefield" are passing. In general the large amount and the inequality of the reading done from twelve to fifteen is striking, and this probably has more to do with the mental and moral development of children than the course of study. The school is only a small part of education. There should be much attention given to this subject, lists of carefully chosen books, etc. The adult's representation of a story is a very different thing from that of a child. Fairy stories reach their maximum at about nine. Then comes folklore and legend. At twelve history begins to dominate in the form of biography and pioneer stories. Travel and adventure comes at thirteen or fourteen, and quieter stories for girls with much sentiment and imagination at the same age. The different kinds of literature should come when interest is ripe. The lives of authors should be presented, and far more could be done than is now done.

S. F. Chase [2] found that 65 per cent of the men and 46 per cent of the women answering her questions reported a period of secret reading. Sometimes this was done under forbidden conditions such as stolen time. There was also great curiosity to read books that had been condemned, an earnest desire for knowledge that had been withheld. A few had exchanged clandestine reading matter. The outside influences which guided the choice of books were chiefly personal, and here the mother ranks first; then followed teacher, father, sister, brother, schoolmates, and older friends. Many say that teachers never tried to influence their reading. Home reading aloud is always spoken of as most beneficial. Sixty per cent out of 719 reporters were great readers. In many instances the passion was intense, the average age being from 10 to 11 or even to 14 and 15. Physical activity seems to compete, especially in the latter of these years, with interest in books. Fairy lore and children's stories usually fell between 7 and 13; greed for quantity as well as excitement, complicated plots, quick action and love, from 13 on. Settled reading habits begin a little before 16, but are usually well marked by 20. In the earliest teens overreading may be a danger. Later definite lines of interest are preferred. The weak, swoony, sentimental trash which had before appealed to girls, and the zest for thrilling or desperado life which may become a craze with boys, begins to moderate. The influence of environment, however, is very great. Many read anything they can get. This shows the great plasticity of this habit.

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[1] The Reading of Papers and Magazines, North Western Monthly, Jan., 1899.

[2] What the Adolescent Actually Reads. Child Study Monthly, 1901, Vol. 6, pp. 322–328.

C. Vostrovsky [1] obtained answers from 1,269 children in Stockton, California, as to the books they took from the public library. In the first place she showed that, beginning with the age of 10, the curve representing the number of books increased rather rapidly and kept on climbing to 17 or 18. These children considered the library as a storehouse, not of knowledge but of stories. At about 16 a change takes place in both boys and girls, showing increased interest in works of a moral general character. Juvenile literature declines, girls read far more fiction than boys, the interest in it greatly increasing at adolescence. More boys use the library before and more girls after the age of 16. After a great increment in fiction interest at about 14, the extreme delight in the story fades at about 16, as the school requires larger use of the library for general purposes. Boys care most for science, history, travel; girls for literature and biography. Boys read rather more hastily than girls. About one-third of the use of the library was for school work or some special information. Girls prefer domestic stories and those about children like themselves and about girls. For these boys care little but prefer adventure. No boy confesses to have read a purely girls' story, while girls frequently admit interest in stories about boys. Women writers appeal most to girls and men to boys. In fiction, more standard works were drawn by boys.

L. H. Chalmers [2] discusses the imaginative element in children's literature on the basis of two questions—what was most enjoyed as a child and at what age, and what literature is now most approved for children. Boys that love horrible stories do not approve them in maturity. The reasons for approving any kind of literature are very curious, inadequate, and contradictory. One would have the child read in the line of its abilities; another to supplement its defects. One would give them anything they liked and another nothing. One prefers imagination; another would eliminate this. One would introduce the child kindly to real life; another keep him from it as long as possible.

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[1] Study of Children's Reading Tastes. Ped. Sem., Dec., 1899, Vol. 6, pp. 523–535.

[2] In Studies in the Imagination. Ped. Sem., Apr., 1900, Vol. 7, pp. 114–123.

Adults do not value the exercise of the imagination as highly as they experienced it in their childish reading. Girls with strong mother instincts prefer natural stories. These always lead with teachers, while they are the second choice with children, the fairy story leading.

A. P. Irving[1] obtained lists of their reading from 600 children who had been in school from three to nine years. He found girls read more, but with less variety. In the fifth and sixth grade children's books are mostly good, while in the eighth a lighter vein of literature creeps in, and in the ninth grade and the first high-school year the titles of the juvenile books are generally forgotten, although the authors are remembered. Nearly all declared they had read many they could not remember. There seems to be too much aimless, wasted reading, and the author thinks it should be directed.

W. G. Chambers[2] gathered some 2,500 answers to the question, what kind of person the pupil would prefer to be, and why? These data were collected in the form of a composition from all grammar grades. He found that young children strongly tend to select their ideals from among their acquaintances, but that this tendency declines rapidly from the seventh to the ninth year and in its place the curve of selecting remote personages increases. Less than 1 per cent of the children have no ideals. Historic ideals increase to 11 or 12 and then decline. Contemporary ideals other than acquaintances increase steadily through the whole school period. Girls distribute their choice over a greater range of ideals than boys. National heroes must not be thrust upon little children at an age when their interest centers in homes, acquaintances, and, on the other hand, devotion to these must not be prolonged. Deity and Bible characters occupy a very small place in the ideals of American children as compared to those of England. Teachers are not popular ideals as a whole. Girls prefer writers, artists, musicians, philanthropists; and boys, soldiers, adventurers, financiers, and inventors. Girls choose more foreign ideals. "All studies combine to emphasize the appalling extent to which girls emulate male ideals, especially in the adolescent years. There can be no doubt that this tendency has promoted the disintegration of feminine character, and aggravated the excesses of the so-called 'emancipation of women.'" Our texts must admit more and worthy feminine ideals for girls. With increasing age girls' ideal women are those great by their own merits rather than those great through their relationship to great men. Intellectual and artistic qualities do not hold a very prominent place, but more so with girls than with boys. These choices seem to come from the inmost heart of the children.

H. Goddard[3] collected about 100 papers of each age and sex of schoolchildren from the age of 6 to 14. His study brought out some interesting differences between German and American children, e. g., sex shows no difference in choice of acquaintance ideals because German boys chose father and uncle as their ideals much more frequently than American boys. The opposite sex was chosen much less often by girls than in this country. The curve of historic and contemporary ideals starts lower and mounts more slowly. The difference here between these low-class but well-taught German children and those in America is marked. German children love strangers less or acquaintances more. Although choice of Bible characters and deity as ideals are much more frequent across the Atlantic than here, Bible characters play an important rôle in answers to the question, "What person do you most wish not to be like?" indicating that warnings from Bible stories had been heeded.[1]

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[1] Home Reading of School Children. Ped. Sem., Apr., 1900, Vol. 7, pp. 138–140.

[2] The Evolution of Ideals. Ped. Sem., March, 1903, Vol. 10, pp. 101–143.

[3] Ideals of a Group of German Children. Ped. Sem., June, 1906, Vol. 13, pp. 208–220.

Conradi[2] gathered 227 returns, 90 per cent of which were favorable, to the question whether there had been reading crazes, and he also sought their cause. Many neglected their work and studies to read, sitting up till very late hours, or even rising early. Most read to have the feelings stirred. Then followed the desire to gain knowledge, to be able to say that they had read many books, to rouse the imagination, to pass time, to widen the vocabulary. Some preferred special kinds of reading, and some report that they read anything and everything. Just half of all reported that they had at a certain age, usually just before or at the dawn of puberty, attempted original poems, 7 per cent sending specimens which deal mostly either with living persons or with nature. Some, which the author prints, are very creditable. The majority report it as their opinion that the best basis of English composition is incidents or events of interest in their own life or observation. Next in order of frequency followed the opinions that theme work which required reading up for information was best, and only a few preferred paraphrasing or purely imaginary or expository themes. To the request for opinions concerning the reading calculated to do most good at the individual ages, the following books were most frequently named for children under the teens: "Mother Goose," "Cinderella," "Puss in Boots," "Alice in Wonderland," "The Seven Little Sisters," "Dotty Dimple Books," and "The Story of a Bad Boy."

Fifty-four per cent described cases of children, especially girls, who loved to quote pretty phrases or album poetry. The collection of these is very interesting, and some of them are given by several children. I quote the following samples:

> "Silently one by one in the infinite meadows of heaven
> Blossom the lovely stars, the forget-me-nots of the angels."

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[1] See Johann Friedrich, Die Ideale der Kinder. Zeits. f. Päd., Psy., u. Pathol., 1901, Vol. 3, pp. 38–64.

[2] Children's Interest in Words, Slang, Stories, etc. Ped. Sem., Sept., 1903, Vol. 10, pp. 359–404.

"Of all sad words of tongue or pen,
The saddest are these, 'It might have been.'"

"The day is done and the darkness
Falls from the wings of night
As a feather is wafted downward
From an eagle in its flight."

"Would we waste the day in wishing for a time that ne'er can be?"

"Be noble, and the nobleness that lies in other men, sleeping but never dead, will rise in majesty to meet thine own."

"How beautiful is night!
In full-orbed glory yonder moon
Rolls through the dark blue depths."

Proverbs and wise sayings make up a very large number of these quotations. They are usually of the most familiar and often trite kind.

"A stitch in time saves nine."

"Handsome is as handsome does."

"Be good and you will be happy."

"All's well that ends well."

Many express extreme sadness, altruism, self-affirmation, love. These are the chief elements. Album poetry where deep sentiment is masked with humor is one important ingredient.

One of the most significant culture movements of the last few years in this country is the invasion of the *library* upon the school. In the *grades*[1] the library now goes to the school and the school to the library. Librarians make the children's reading room attractive and tell stories even on fine days when some children ought to be out of doors, and offer most seductive lists of supplementary reading for every grade and topic. The library often takes sole charge here and should take charge of those beyond school age. The *high* school expects the pupils to find help in the library for debates and composition, if not for daily lessons, and librarians teach them how to get at what they want. In the *college* and the university the library is becoming more and more the heart of everything and the professor a grand chamberlain to introduce books, give their credentials and inspire students to read them. The library is the center of the seminary and a necessity even in the laboratory. More and more of our college dons' teaching is where to find what literature may be wanted. Now, for young people, nearly half of whose body by weight is muscle, to sit in closed spaces in the usual reading postures and exercise only the muscles of the eye that weigh two ounces, monotonously zigzagging across the printed page, while nearly a quarter of fourteen-year-olds develop eye defects, presents a serious problem in racial hygiene. If the child actually becomes bookish something is usually the matter with it, but despite the dangers, the advance of the library upon the school is on the whole a vast benefit for the latter, which we are coming to realize more and more, and there are increasing opportunities for coöperation along this line.

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[1] Doren, Electra C.: School Libraries. Report of the Commissioner of Education, 1897–98, Vol. 1, pp. 684–692.

One danger, though, that now looms big is that of mediocrity, of the second or tenth best in literature, for the great problem of selection from the so rapidly growing mass of juvenile books written for children. The sad fact remains that children can develop a veritable passion for reading *per se* things on or below their own level, mere ferment, artificiality and vanity, that they ought to learn in the more vital ways of experience and conversation. Printing gives no added value to commonplaces and the reading habit should not dignify platitudes. Apprehension through the printed page is slower and involves more nervous strain than perception, and the book is liable to get between the child and nature and life. Child life in the field, on the street, or at home is rich and must not be encroached on. Not only may the new knack of reading or seeing familiar things through the medium of print, by authors who strive to get down to the children and tickle them by quaint affectations of style and sickly sentiments, become a distinctly neurotic habit, but it may make things near seem afar and unreal and bring mental anæmia. The charm to a country child of reading in the first grade literature of the cow, pig, dog, cat, which he knows so well at first hand, is almost meretricious, and the same is true for the city child and also up the grades. Nor is it well to spend much time in reading about what every child is certain to learn anyway at first hand a little later. Thus the precept to read only what adds something essential, that could not be got otherwise and outside the stern and narrow time and place limitations of the child's individual life, would reduce many of the lists, and neither in the school nor the home can or should the book compete with the oral story. So, too, illustrations should be many of them colored—most of them full of action with broad and simple treatment, perhaps drawable; not too often making really pitiable misfortunes humorous or jocose, and thus blunting pity or suggesting mischief, like "Peck's Bad Boy," but with plenty of animals and children, though not of the Greenaway short-waisted, doll-faced type that never grow up, and which charm adults but cannot compete for the suffrage of children with the rough daubs of *Struwwelpeter*.

When the child can read and its soul can take flight through the vast psychic spaces represented by books, there are also *new* possibilities of degradation, moral, physical and mental, and just as, since charity is now a science as well as a virtue, we must not give doles to beggars indiscriminately lest they pauperize and besot, so we have no right now even to teach reading without taking every possible precaution that the vastness of a new opportunity cause no decadence or bring muddle, for nothing is more dangerous than great ideas injected into small minds, or lurid tragedies made the habitual diet of excitable souls, as in yellow journalism. Possibly the world's best is too *great* and just barely possible its undiluted best is too *good* for some children. Books true to life and that interest are sure to have some bad characters and acts in them, but perhaps the pale bookish way is the best in which to make children acquainted with the inevitable evil they must know. Even the Sunday School library, the function of which is now happily growing, must not and does not now exclude all but goody books.

Differences in reading tastes between boys and girls, which are very slight in early childhood, not always sufficiently known or taken account of, appear several years before puberty and thereafter increase rapidly. These differences are so spontaneous and universal, so well established by many statistical studies by various methods upon so many thousand children, that they should be duly recognized by librarians, teachers and parents. These are among the most interesting and important revelations of how very diversely nature has decreed that the soul of the two sexes should develop. Chief among these taste differences are the following: Girls usually read most books. If they do not acquire the habit earliest, they certainly maintain it after that of boys has begun to decline and some censuses indicate that they read most at all ages. Even at those ages when they certainly read most, viz., the later teens, they read fewer different books, that is, a larger number read the same. Girls rely more upon the recommendations of teachers, older companions, and others, while boys show greater independence and individuality of choice, and hence use on the average a wider range of books. Girls read what others read, while the books others know have less charm and sometimes almost repel boys who prefer to be ignorant of what all others about them know, and to interest themselves in what none or few others have read. Again, secret and clandestine reading of literature that is condemned, forbidden or disapproved, is more common among boys, for prohibition attracts them and arouses their curiosity. They more often fall victims to the literature that it is a crime to print, circulate or own. The vast amount of this literature now confiscated and destroyed by the purity societies shows at once the extent of the danger and gives hope that protective agencies against it are becoming more effective. In the teens, boys often look somewhat askance at reading recommended to them by lady teachers who often quite fail to understand how widely their tastes differ from those of girls. With the present feminization of teaching, therefore, boys are more uncontrolled in their reading. This, I think, we may connect with the oft-noted fact that men, young and old, often condemn much which they used to read when young, while women are more prone to advise others to read that they did when girls, their mature judgment more often coinciding with their childish tastes. Both sexes love literature about animals but in a different way; girls preferring accounts of pets and domestic animals, while boys care most for the literature of wild, savage beasts, and for hunting. Girls love cats, which ripening boys often abhor, strongly preferring dogs, often sharing the enmity of the Canidæ for the Felidæ. This may be atavism, for men were huntsmen of old, while primitive women domesticated nearly all the animals that serve man.

Again, boys read most history, science and travels; girls most novels and poetry. The historic interest of the latter is more often personal and biographic. Boys love adventure, girls sentiment. Women writers appeal far more strongly to girls in the teens than to boys, for whom at this age few women can write attractively. In childhood, both sexes are interested in fairy tales but girls most, and while boys practically cease to care for them by the fourth or fifth grade, girls' zest continues through the sixth, seventh and later. Girls care far more for fineness, whether of style, binding, illustration; treat books better and are more amenable to library rules. As between content and form, girls care relatively more for the latter, boys for the former. Girls love to read stories about girls which boys eschew, girls, however, caring much more to read about boys than boys to read about girls. Books dealing with domestic life and with young children in them, girls have almost entirely to themselves. Boys, on the other hand, excel in love of humor, rollicking fun, abandon, rough horse play and tales of wild escapades. Girls are less averse to reading what boys like than boys are to reading what girls like. A book popular with boys would attract some girls, while one read by most girls would repel a boy in the early and middle teens. The reading interests of high-school girls are far more humanistic, cultural and general, and that of boys is more practical, vocational, and even special. Girls' interest in love stories and romance is earlier, far greater, and continues longer than with boys, and the same is true, although to a somewhat less extent, for society tales.

Reading crazes seem to be experienced in some degree at some time by the majority of school children. Some read for years with abandon and intoxication, rushing through an amount of literature that would seem incredible were not the evidence so abundant, while with others the passion is milder and briefer. It usually occurs just before or perhaps in the early teens, when it seems as if the soul suddenly took flight, awakening with a stare to the possibilities of transcending the narrow limitations of individual life and expanding the personality toward the dimensions of the race itself, as if trying to become a citizen of all times and a spectator of all events. This is one of the most interesting phenomena of youth standing tip-toe on the mount of expectation as the vista of life first bursts upon his view. Those who experience this in full measure are never the same thereafter. It seems to occur somewhat earlier in girls than in boys, and to more often cause a bifurcation of the inner life of idealization and fancy with the outer life of dull and often monotonous daily routine, especially of a girl's life in school or home. In reverie, she dreams of wealth, splendor, heroic wooers who take her away to a life where all desires are fulfilled, where the possible becomes actual and castles in the air materialize. This also often makes the future seem so rich and full that some disillusion is inevitable later. Boys in the book craze also sometimes read away from life, but feeling that their destiny is to be of their own making are more liable to be spurred to action, occasionally, to be sure, to run away, to fight Indians or become bandits or beat their way to a city and to fortune, but usually to strive to achieve more legitimate ambitions, to win fame, fortune, beauteous maidens, and to do great deeds. Ruskin and others since have deprecated the danger of such passionate devotion to the reading of the best things life has to offer him lest ordinary life pale by comparison and become humdrum and insipid and home and parents seem stupid and commonplace; but is it not on the whole well to feel strong and early the spurs of that discontent which is the first step to the betterment of both self and environment?

There is still a far too wide difference between the reactions of children to spontaneous reading and to that prescribed for them by adults. From eight or ten on into, if not through, the teens, every statistical study yet made shows a rapid rise in the amount of reading chosen by the children themselves, while both Barnes [1] and the Hartford Report [2] show a striking decline in the stated reading which the school demands. Though it be done, it is with steadily declining interest. The ponderous list of the Wisconsin State Superintendent in 1902, of 1,588 books for high-school libraries selected chiefly by principals and college professors, a list outside which it is illegal to purchase either books or editions with library funds, seems to me a good modern instance of an organized attempt by adults to control pupils' reading without sufficiently consulting their tastes. The same is true now to a greater and now to a less extent, of half a shelf of books, pamphlets and articles I have collected (the one hundred or five hundred best books, standard child libraries, courses of reading, sometimes approved by formidable lists of literary and other great men and women, etc.). Some of these lists omit many of the good books that children would have voted in, had they been consulted, while others contain most of them, but with nothing to designate their popularity with juvenile readers or to distinguish them from adult prescriptions. It is already possible, however, to make a good beginning of a juvenile library of books which children of each age prefer, and one of the chief needs of the day in this field is more statistical data of what they love best and a canon of child classics or Bible compiled from their suffrages or of what they most often recommend to each other. Those are greatly in error who think we have solved the problem of children's reading. We have, in fact, just begun to see its dimensions. We can, however, already (1) perceive some great crying needs of books of a kind which do not exist, (2) discern the outlines of a method of selection not yet applied, and (3) some principles of elimination by which an index expurgatorius could be begun. Let us consider these.

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[1] Barnes, Earl. The Child's Favorite Study in the Elementary Curriculum. Addresses and Proceedings of the Nat'l Ed. Assoc. 1903. (Based upon 1,150 boys and 1,200 girls.)

[2] Report of the Education Research Club of Hartford County. Likes and Dislikes of Pupils and Teachers, April, 1905, based upon 3,994 boys and 3,880 girls between eight and fifteen. Hartford Press. The Case, Brainard & Lockwood Co. Hartford, 1905.

I. We need a series of *animal and bird books* of which as yet I have never seen a single proper specimen; for instance, a monkey book, a book devoted to the wolf, one each to the fox, bear, lion, tiger, elephant, dog, eagle, ants, bees, wasps, and two or three dozen other forms of animal life. In other words, there should be a child's animal library, and here some publishers or authors are certain to make fame and fortune as unexpected as that which came from the Teddy bear, from Uncle Remus's "Br'er Rabbit," from "Black Beauty," or in the Middle Ages centered about the living totem of the lower classes, "Reynard the Fox," of which a thousand editions are extant. The veins of interest here are comparable to those producing natural gas, oil, coal and other great resources when their richness was first perceived, and great results are certain, provided only the exploitation be right. Certain principles can be laid down with confidence as follows: Each of these books must be very copiously illustrated, often in colors, and all the recent nature books, not faked, must be cross-sectioned and laid under tribute. Let me describe one or two of these ideal but as yet non-existent animal books for the young, beginning, for instance, with the *monkey book.* It should first describe from all available resources the life habits of typical species, how they live in troops, their leaders, their battles with each other and with the enemies to which they are most exposed, how some of them break up into family groups at the pairing season, how they carry and care for their young, the daily routine of the male and the female, the dangers to which they are exposed, their food habits, how they sleep, their migrations, their organized forays, their diseases, parasites, reactions to extreme heat and cold, their language—all these compiled from trustworthy sources now so accessible, copious and well known, but widely scattered. While true to fact, the style should be lively and the anthropomorphism frankly seen, to awaken and sustain humanistic sympathy. Another chapter should be devoted to the monkeys in captivity, their domestication, characteristics of species, and in these their training, its methods and results, with biographical sketches of famous apes, particularly the four great species now living, chimpanzee, gibbon, orang and gorilla, with plenty of authentic anecdotes, etc. Another section should tell of monkey myths from the ancient Hindu war against Ballin, king of all the monkeys, to the way in which primitive races that know them best regard them, with fables of their imitativeness and other traits from Æsop down. Then, too, there should be a brief and popular story of the surprising results of recent experiments upon ape intelligence and educability. In another section for older readers there should be a few skeletal comparative plates showing species and the relation of their frame to that of man—perhaps all on a single page with another page of comparative embryological development, and one or two more to illustrate comparative anatomy of other organs, and one or more outline maps should show the habitat of different species which should be represented by cuts as numerous as in Brehm. In a page or two there should be a brief statement about the fossil monkeys, particularly the great ones ending with the Java pithecanthropus, the missing link, and a paragraph should state some of the Simian traits in men and in babies. What is wanted is a general survey of all that is known with stress not upon morphology, but upon behavior—all condensed, simplified, humanized, richly dight with moral and copiously studded with incident and story in a way to awaken sympathy and give knowledge of the forms of animal life nearest to man—possibly his cousin, having a common but yet undiscovered ancestry.

So a comprehensive dog book constructed on somewhat analogous principles with a little about pedigree, domestication, and many cuts of breeds, a great deal about disposition, the manifest services which dogs have rendered and still render to man, etc., is another need—their courage, devotion, stories, poems as numerous perhaps when brought together as those on trees collected by the writers of Arbor Day monographs. With this might go the very educative experience for a boy of owning and caring for a dog. Nearly every trait of human character is seen intensified and simplified in the instincts of the canine species, so that a good knowledge of dog psychology and ethics is one of the best pedagogic introductions to the study of human nature, and the same would be true with variations and diverse degrees of the other books.

Such a library would awaken a deep and often dormant interest in the parents themselves and bring them into closer rapport with childhood. Children have a right to revisit thus the ancient paradise of the race when men knew more and lived nearer to animals both hostile and friendly and often worshiped them or derived their descent from them, for they have been on the earth indefinitely longer than man. Lacking this, there is in the child's soul a missing link greatly needed in education, a vacuum which may be filled by the regenerative psychic tissue of morbid fears, perhaps of imaginary creatures or by cruelty, but I can only suggest this and must pass on.

II. Another crying need of childhood for mental pabulum even in this age of juvenile books is for condensed and simplified stories of the *great mythic cycles,*[1] epics and classics that arose and took form in the youth of all the great races that loom up in history. There is a rich mother-lye of culture that has vitality enough to survive for ages before and without the aid of print and which constituted about the whole of the educational material of older days. When this shoots together into such ethnic monuments as Homer, the Niebelungen, the Arthuriad and the rest, it welds tribes together into races. To this, far back though it be in time, the soul of youth is nearer than it is to the last election, for where the world is young there youth belongs and is at home. I have several score of books epitomizing this material for youth, and although they are of different degrees of merit, the best of them do not, in my opinion, quite fit youthful nature and needs. To bring them home and to bring out their full power, they must be fluidized again and their material put through a long and laborious process not all unlike that to which they were subjected in the dim ages of the scalds, bards and other transmitters and molders of tradition. This is a new and great pedagogic demand and next step inevitable, I am optimist enough to think, because needed. It will require the coöperation of many people and many years to complete it. These great classics of the world must, in a word, be reëdited jointly by teachers and other adults on the one hand working with children somewhat as follows: Let each who enlists in the work select some story, be it Orestes or Hamlet, Ajax or Philoctetes, Faust or the Wandering Jew, or any one of a hundred others, master it, feel all there is in it, and then tell it to children as effectively as possible, but always have them, after a brief interval, give it back in writing or orally in order to show just what parts and phrases sunk deepest, were retained with the greatest fidelity and exerted the greatest influence upon the youthful soul. Upon this basis, the telling version should be revised and recast and the story told again and given back until at last, like an actor who has played the same part for years and may have changed it to something quite different from and more effective than what the author made it, he can say—this story thus told best fits children of a certain age, for instance, in this form those of six, in this those of ten, in that those of fourteen, etc. When many have done this for many of the best story radicals, we shall have begun to evolve a true child's canon of the great classics of the race. These versions should be shorter, simpler, and very different in many respects from the originals and from the editions lately made by editors in their studies without the aid of children, but immensely more effective. May we not say that every child might demand as a right long withheld to feel the power of these great, supreme traditions of mankind? They are charged with moral power, mental stimulation and æsthetic inspiration. No creation of individuals can approach them in either of these respects. They are like the eternal stars, while our contemporary *ad hoc* stories are like tallow dips which may obscure the light from the planets themselves, merely because they are so near. Occasionally the text itself of these old legendary themes cannot be improved on for the young, but there is always much that needs to be elided, much to be condensed, perhaps still more that needs recasting in form and may be made very telling, while if read as it stands in the text, it takes no hold whatever.. Some great themes, like, for instance, the Golden Age and Paradise, still need original mosaicking and editing, and could then, as Pfleiderer says, be made of great worth. Now enough of this editing has already been made to show both its practicability and its great educational value. One of the chief pedagogic tasks of the rising generation, then, must be to reëdit these grand mental sources which have made nations and races, which have been the nucleus about which culture and nations have evolved *pari passu*. Some of them have been reconstructed many times by master minds for adults, but children have as much need of them as of the homunculi called dolls or reduced adults or of toy engines or the many other masterpieces of mechanical simplification in the form of playthings. Why should not the Story-Tellers' League with its 5,000 members essay this task? Nearly a score of years ago the French, when their education began to be laicized, commenced to sift over all their own literature and history in quest of the tales, incidents and proverbs illustrating honor, glory, self-sacrifice, etc., for a moral inspiration to fill the ethical vacuum left by the elimination of Scripture training in the schools. The labor involved in our task is a yet higher and harder one, but is also more needed, and that it will be achieved I am convinced with no shadow of doubt, for youth must be served.

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[1] H. A. Clarke: A Child's Guide to Mythology. N. Y., Baker & Taylor, 1908, 399 p. Edwin Sidney Hartland: The Science of Fairy Tales. Lond., Walter Scott, 1897, 372 p.

The most important contribution to the vital problem of selecting fit reading for the young is made in two recent publications of H. Wolgast,[1] of Hamburg. He insists that if an author would write for youth he must not write for youth, a paradox which Miss Jordan compares to Punch's advice to those about to marry. Education is the only object of writer or reader. Everything must instruct, uplift or delight. To read for amusement is unnatural. He objects to the moralizing story but would have only works of art. He would allow the *Backfisch* or budding girl to read anything except girls' stories. These require her to be affected by the fate and experience of this or that character. She must have endured all their moods. Thus her soul loses its simplicity of response and has a sickly emotional sense of destinies. Instead of plunging into the depths of her own life, as she should at this period of expansion, she fritters away the opportunities of this age in light and futile ways and is held to superficialities and vanities, lives in a very shadowy and unreal, not to say false, world. This kills the sense of truth and puts egoism in the place altruism should have, so that life often has a rather cruel lesson in store to rectify the artificialities thus engendered.

Wolgast is the editor of the *Jugendschriften-Warte* of Berlin, a monthly journal founded by Ziegler in 1893, which is the organ of the association of German committees for the criticism of children's books. This association and journal have formulated the principles which should control the selection of children's books, and already in 1906 there were eighty-seven local committees throughout the German empire who undertook to "sift the yearly output of juvenile literature, rejecting the wholly worthless and commenting upon the remainder." A list is then published each Christmas-time, recommending a few books to parents and teachers. These lists are distributed freely all over the country. There it is the teacher, not the librarian, who really oversees all children's reading, the library looking chiefly after those over school age.

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[1] Das Elend unserer Jugendliteratur. Leipzig, Teubner, 1905, 225 p. Vom Kinderbuch, Teubner, Leipzig, 1906, 140 p.

The object of Ziegler's *Jugendschriften-Warte* is to educate parents and especially teachers in regard to the principles of juvenile literature and to establish and secure the recognition of certain standards, below which literature for children must not be allowed to circulate. It publishes a monthly record of criticisms, has annual meetings in various cities, and is attempting to deal deathblows to the demand for sensation. The teachers are considered as the proper directors of public libraries in Germany. The movement has affiliated itself with that for the study of folk-lore. On the negative side, the committees have been destroying angels for a large number of books deemed unfit, which are summarily executed. Each book must be read by at least three members independently, who write their verdict with its reasons. Should all approve, the local committee adopts the book and it is sent in to headquarters and the verdict is published. In general, the editor receives critical reports from half a dozen committees or eighteen members on each book and this is published with his summary. At the end of the year all those finally accepted are incorporated in a catalogue of books suitable for the young to read. In all these years there are now not far from a thousand of these books in the canon, nursery tales, fairy stories, legends, ballads, animal biographies, novels, etc. The association seeks not merely to criticise, grade, select, but to discover gaps; for instance, like those in books of travel and popular science in Germany. Local committees may also make abridged editions suitable for special requirements, and their Christmas gift book catalogue is a very special feature. About a month before Christmas an exhibit is organized of books on the list which parents can actually consult before ordering.

These generally fall into more expensive or elegant works and those at popular prices. The association has often secured popular editions. The society seeks the coöperation of publishers and authors. In one work, Wolgast has given an exhaustive summary of all the available sources for the songs and ballads of German children and has published a cheap collection of their rhythms. Great stress is laid on illustrations, according to age; harmonious colors for young children are stressed. There must be as much real merit in a book for a child as for an adult. The true *Kinderbuch* should be a complete work of art, so that prose editions of great poets for children and most child editions of famous works are not as a rule favored, although this has exceptions. Great literary men rarely had children's books when they were young. By shutting children up to books written down to their level we limit their intelligence. No book is good for a child which a grown-up person cannot fully enjoy. There must be no jingo patriotism or sectarian propaganda or commonplace moral sermons. Only experiment can show when a child is ripe for a book. Reading merely for its own sake as amusement to kill time must be rigorously eliminated. It must not be forgotten that many a book has elevated and others have begun the ruin of the young. Sensational fiction accustoms the mind "to the fevered pressure of extraordinary incidents, bombastic language, slip-shod inaccuracies of style, entirely unnatural atmosphere of highly colored romance and adventure books." This tends to ruin appreciation of sober, serious style, which constitutes good literature. Sensationalism must, therefore, by every means be repressed instead of exploited. All this work, of course, has aroused enemies, some of whom are found among the orthodox religious or political parties, who suspect socialistic and other propagandas; and certain booksellers have formed a union against its work. But it seems now securely established. The juvenile book must not be too heavy or too long. The work of the association has been a sentinel of children's literature and has been most beneficent.[1] Though the United States has nothing comparable to this association, excellent work has been done by the Children's department of the Pittsburgh Carnegie Library and other children's libraries to aid in book selection, and the books of Mrs. McClintock, Salmon, Field, and others [2] afford helpful guidance to parents and teachers.

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[1] I. Chadburn, Book-selection committees for juvenile literature in Germany. Library Association Record, Feb., 1907, Vol. 9, p. 56.

[2] Z. E. Salmon, Juvenile Literature as it is. London, Drane, 1888, 243 p. Walter Taylor Field, Fingerposts to Children's Reading. Chicago, McClurg,

III. A third new type of child book we need is an account of *primitive and savage* life. Frobenius in his "Aus den Flegeljahren der Menschheit"[1] has shown almost like a revelation what can be done and how the right article is welcomed. He was an anthropologist and has compiled with over four hundred cuts a simple story of how the lower races live, hunt, play, weave, manufacture, cook, eat, sleep, fight, their myths, religious ceremonies, family and tribal organizations, etc., laying the vast resources of ethnology under tribute to show the young how the great majority of men who have peopled this earth in the past, and a good fourth now living, actually meet the problems of life, regard sun, moon, stars, sea, trees, animals, fields, fire, lightning, the clouds, and think of the origin and end of man and all things. All this is very near to the child. Infection betimes with knowledge of these primeval forms of life and mind at the fit age when contagion is easiest is like vaccination which renders immune many forms of vice and hoodlumism later. The German language, Közle tells us, has nine hundred and fourteen words in common use for children's faults and less than half that number for their virtues, for evil is far more varied, striking, and, in a word, interesting, than uniform moral correctness. Here, then, is another line of juvenile literature needed, and, therefore, sure to come.

In Germany *folk-lore* has by a great consensus come into the school.[2] Since Miss Wiltse's plea for a wider recognition of story telling in this country, some twenty years ago, we are waking up to the idea that we can preform the spirit and very laws of the nation by stories brightly chosen and told. We must not forget that back of all the well developed literature which arose from tradition there is still an immense and largely

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1907, 275 p. J. G. Gayley, The Classics for Children. Ped. Sem., Oct., 1895, Vol. 3, pp. 342–346. A. P. Irving, Home Reading of School Children. Ped. Sem., April, 1900, Vol. 7, pp. 138–140. 600 children three to nine years in school. Montrose J. Moses, Children's Books and Reading. N. Y., Mitchell Kennerley, 1907, 272 p. Everett Shepardson, Children's Literature. Los Angeles, The Neuner Co., 1908, 88 p. John Albert Macy, A Child's Guide to Literature. N. Y., Baker & Taylor Co., 1909.

[1] Leo Frobenius: Aus den Flegeljahren der Menschheit. Bilder des Lebens, Treibens und Denken der Wilden. Gebr. Jänecke, Hanover, 1901, 416 p.

[2] See A. F. Chamberlain. Recent German Discussions on Folk-lore in the School. Ped. Sem., Oct., 1900, Vol. 7, pp. 347–356.

unexposed wealth of folk tale and folk song and that the work of Grimm, who collected so much previously unwritten material from the mouths of grandmothers and aunties, might be indefinitely increased. Dänhardt has suggested that pupils collect songs, rhymes, tales, legends, and all kinds of items of folk thought, and this indeed has often been done successfully. Children here are coöperating in scientific work. Observation myths teach attention to Nature and those that explain how and why things occur are really the matrix of reason about cause and effect. Grüllich recently advocated the introduction of local folk-lore into every school as the best means of bringing children into touch with the spirit of their fathers, and also it will give a depth to the interest in history, geography, music, classics, etc., and make the folk soul live in the individual. Folk-lore thus taught must not be too precipitately interpreted. Gräve thinks that thus the virtues of the folk or the national character may be best preserved. He even thinks that the public schools should be the very nursery of folk literature of all sorts, that thus their work can be greatly increased in its efficiency and modern materialism checked. He would begin with *Märchen,* proceed to *Sage* in the higher grades, and utilize the entire round of folk literature. Zehme answers that he thinks an adequate recognition of the splendors of German mythology might tend to dull appreciation of the classic literature. The Teutonic legends are not heathen in a bad sense, but they are moral and æsthetic, although they may be a little more nebulous than the Greek. Van Jostenode tells how little real food for the child's mind the school curriculum offers in comparison with the mental pabulum which modern life provides for adults, and he thinks the school starves the intellect of the young. He believes that if the folk soul can pour its whole content of form, feeling, song and life into the young, their psychic development will be immensely and most wholesomely stimulated. It is no hothouse product, but takes us to the very center of the power of the Aryan mind. Nothing so expands the individual soul to the dimensions of the soul of the race; even the melodies and ballads and dances should be conserved. The Teuton soul has its very best embodiment in its folk-lore in just this largest sense. The folk spirit, not the pedant's soul, is what the child wants. Another writer, Muthesius, insists that folk-lore should be an essential part of the education of the teacher. He must be held responsible for bringing the individual into touch with that of the stirp. He says a folk-hearted teacher, with the lore of the people at his command, is the ideal rather than the creation of a new department of the curriculum. Thus many would cultivate folk-lore for the sake of the child. This is often described as Teutonism as opposed to the classical pedantism. Chamberlain concludes that perhaps folk-lore will thus be a great resource to which the nations of to-day will return after they have exploited materialism. This is the real *vox populi, vox dei,* which will be utilized for their educational salvation, thus realizing the ideals of Hermann Grimm, that German youth shall come to know ancient Rome and Greece through German instead of vice versa. When this day comes it will be a period of genuine German renaissance. I have only touched a few points in this vast field, but I cannot close without an earnest plea for more oral story telling ways of introducing books to children, a subject which in recent years is receiving much attention and in which quite a bibliography is accumulating of which a few samples are noted below.[1] A story told to children is a composite of various incidents and words, some of cardinal and some of very slight importance. When asked to reproduce these items, children differ immensely. In a story of three hundred and twenty-four words, or one hundred and fifty-two thought units constructed for experimental purposes, told to children by J. C. Shaw, the reproductions ranged all the way from three to fifty lines.[2] It is remarkable how this type of memory can be cultivated, how early it reaches its maximum in children, and how prone reproductions are to amplification, improvement or change. This method of telling and reproduction is the alembic through which every standard story for children should be passed. The difference between older and younger children is very like that between stupid and bright children and consists in the more complete and full reproduction. This work may have suggested the *Aussage* studies and might be more fully worked out as a variety of them. Mankind heard and spoke for untold ages before they wrote and read. The ear and mouth way is shorter and vastly more effective than the long circuit tract of pen wagging and taking in meaning from the printed page by the eye. In the great literary eras in France, conversation gave the style to books, and in the dull periods conversely books gave the style to conversation and people talked bookishly. Thrice happy the child who makes its first acquaintance with the great monuments of literature which arose when the world was young, not by reading, but under the spell of the story teller's art! Thus, till lately in the world's history, all knowledge was imparted from the grown-ups to the rising generation. Thus the great men and women and heroes of an elder day that letters depict lived on from age to age, and the tales of them slowly took shape edited by the folk's soul into the great mythopœic masterpieces, for these are the quarries out of which the master workmen in literature obtain their material. In early plastic oral form these were meaty and condensed and grew to have a chiefly ethical content almost in proportion to their age. Next to telling is reading to children, and for one I care not how much even this function encroaches upon school time or breaks up its routine. As to reading, and especially at adolescence, it is chiefly to satisfy the feelings which then and thereafter are three-fourths of the soul and represent the life of the race, while the intellect is chiefly an individual product and therefore more accidental. Four great definitions of education by four of its greatest prophets are that it consists of learning to fear aright, to be angry aright, to pity aright, and to love aright, and thus the instincts and sentiment are tuned to the world without. Girls who cultivate heart must, of course, have love stories, and although they must be pure, there must be enough of evil to suggest adequately some of the degrees of vileness in the world, though always with the triumph of virtue sure in the end. Literature should perform moral choices, which having acted aright in ideal cases will be more likely to do so in real and trying emergencies. Urgent as are practical needs in our age and land, librarians seem now likely to be held more and more responsible as guardians of all those educational agencies that take the individual out of his narrowness into the larger life of the race. Hence, I believe we are only just at the beginning of our task of ministering to the young.

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[1] Sara Cone Bryant, How to Tell Stories to Children. Camb., Houghton Mifflin, 1905, 260 p. Louise Seymour Houghton, Telling Bible Stories. N. Y., Scribner, 1905, 286 p. A. H. Sayce, Story-telling in the East. Eclectic Mag., n. s., Vol. 48, pp. 663–668. E. S. St. John, Stories and Story Telling. Boston, Pilgrim Press, 1910, 100 p. Richard Wyche, Some Great Stories and How to Tell Them. N. Y., Newson & Co., 1910, 181 p. Alice Fletcher, Indian Story and Song from North America. Boston, Maynard, 1906, 126 p.

[2] John C. Shaw, A Test of Memory in School Children. Ped. Sem., Oct., 1906, Vol. 4, pp. 61–78.

In a long experience as editor of four quarterly scientific journals, thousands of books and pamphlets have passed through my hands for book notes and sometimes more extended reviews, and as for twenty years a member of a library board purchasing $10,000 or $12,000 worth of books per year selected from the scores of thousands of works, large and small, printed annually in various languages, and also as a teacher daily giving references for students, many new problems and desiderata are constantly arising. We still occasionally have books, sometimes valuable, the contents of which are almost inaccessible without reading the work throughout. This is an offense of very few scholars to-day. A recent German writer of a book of nearly three hundred pages stated in his preface that he purposely omitted all headings, indexes or keys of every kind, because he wished to do all in his power to compel everyone interested in his subject to read the book entirely or not at all, so complete and sequential did he believe it to be. The modern reader of scientific work demands, however, more and more aids in the way of synopses, résumés, epitomes, summaries of chapters and of the whole. He wants italicized, and perhaps capitalized, words, passages, headings, running inserts, good analytic tables of contents, and every aid that paragraphing, captions, sections, numbers, spacings, tables, curves, illustrations, etc., can give. He reads often and perhaps for the most part tentatively, and doubtful at every step whether it would pay him to go on. Has the writer anything new for him that would justify him in ignoring the hundreds of other books, memoirs or monographs in his field that compete for his time and effort? Hence he skips, skims, looks at the last section of book, chapter-headings, glances at the preface or introduction, samples here and there until, in a favorable case he finds his interest rarely kindled so that he goes on with avidity, or in an unfavorable case it smolders and is extinguished. A dreary waste of uniform pages with few or no clues is usually too baffling, unless the author's reputation is great or his reader's zest really inflamed. Authors should use every kind of device for giving the reader perspective and help him to distinguish between depths and shallows, to find what is peripheral and what is central in thoughts or facts. To-day the reader is increasingly in a collective or comparative state of mind for some time before he abandons himself to complete perusal, which perhaps hardly one in a score among those who wish to sample and get a general idea of the drift of the work really do. The true savant is chiefly intent in developing and perfecting his own specific lines of interest or point of view or deepening his knowledge of certain aspects of his domain. He far oftener wants a part than the whole of what another has to say to him. Thus, almost every writer may profit at least in some degree from considering the arts of the headline writers of the daily papers, if not the psychology of advertising which is now wrought out in interesting ways. A book should not be like a walled city or a castle, closed and frowning from without, however beautiful it may be within. It should never be made needlessly hard for those with only adjacent interests to know and stroll about for cursory surveys. Some archives now happily require all contributors to append a brief summary to all long technical papers. No matter how masterful the modern expert may be in his own domain, he needs to have breadth and all degrees of depth of knowledge. He requires penumbral areas of largely superficial and vague general information and it is important for the organic unity of both science and his own mind that this should be provided for.

Again, the modern teacher needs to be a guide to his pupils' reading and this more and more as we pass up the grades from the grammar school to the university and professional institute. The function of the academic is radically different from that of the public library. The former, as well as the latter, is everywhere increasing and selection and introduction to reading is a rapidly growing part of every professor's work. His seminary, at best, is often held in a departmental library or alcove. In the class room, too, he demonstrates books as a naturalist does specimens. He examines, weighs, describes goods and articles, advises and seeks to get up an appetite in his hearers for reading the best, warns against the worst and even the second best, and keeps and shows his own descriptive bibliography and perhaps has an assistant who does nothing but purvey references and possibly keep tab on publishers' announcements and submit lists for purchase. The librarian borrows and exchanges with other libraries, far and near. He hoards a series of book lists prepared by students in connection with their theses for the benefit of those who may come into proximity with the subject later. Every new invoice of books is exposed where all can see and for a generous period, and so are new journals. Special attention is given to reference alcoves and also to the few best books recommended to every student to purchase as a nucleus of a library of his own. Works of special import, new and sometimes old, are passed around in class and perhaps carefully selected passages read aloud. Occasionally a book of a new kind, needed but not yet existing, is described, and not infrequently advanced students are thus inspired to attempt to make it either as their theses or later. A professor who is also an editor often passes out new books to be reviewed by his pupils for his journal, each of which reviews should be signed. Such notices, instead of being, as they far too often are, perfunctory, should be composed under the specific direction that the purpose of such notice must first and above all be to state in succinct and exact terms, sympathetically and with the use of all the good special phrases of the author, the subject matter. The reviewer's purpose is to lay before the readers the best and not the worst things contained in the book. Only when this is done may the criticisms of the reviewer be appended, always in a separate paragraph. Every special journal should stress such a department and provide for its readers at least a concise notice of everything in any language that is new and important in the field, and this should be done promptly. The academic professor, after briefly characterizing a new work, may call for volunteers to review it to be printed over the student's name if it passes the professor's muster. A special student must be dragooned, if necessary, into the habit of reading diligently and rapidly. He must always do some library work in connection with every lecture course. Each student should be encouraged to look over and make library cards with descriptive notes of many works which he cannot read at the time, for his future guidance, so that he can take away a good catalogue of essential references. He should, of course, guard himself against the danger of going into bibliography too extensively, but should keep to essentials. Thus the library is coming to be more and more central for most, if not all, academic departments, and it has new functions, some of which are apparent and absorbing and many more are doubtless soon to emerge. Even the laboratory is not now well equipped without a library, and we are just awaking to the dangers that excessive manual manipulation in the laboratory, even crude researches that require great time for amassing specimens or gathering protocols, may interfere with the honest hard reading which every student ought to do.

Other points on reading I have set forth elsewhere (Adolescence, Chap. XVI). The current detailed study of a few standard texts I believe to be often pernicious. To be intensive, reading must be extensive and rapid enough to sustain interest to the end. There should always be a glow and heat about it. Form is best impressed by eager zest in the subject matter which should always lead. Reading for philological or rhetorical study of texts is for pretty mature men and women and not for youth and still less for children. Reading for style or even with chief attention to it is for them an affectation and most modern rhetorics are worse than useless, save for incidental reference and for a small kit of terms, tropes and smart expressions which they give. I would have at least half a dozen plays of Shakespeare in the time now usually devoted to one. To *study* Ivanhoe, instead of passing on to other of Scott's novels after having once read it, is working with dulled tools. Did this critical study of one of any one's works ever prompt a student to read another of the same author? As a boy, I was given a cheap paper-covered set of all Scott's works and read them all one summer and everything, I think, of Dickens the next, and most of the plays of Shakespeare in a single very fine print volume which I borrowed one fall from a small country library. The chief thing and the best I got from my college course was due to a series of reading fevers, stimulated by a group of nine classmates called the Junto, who met weekly to pool the results of their reading. Emulation ran high and most of us not only read a great deal, but had favorite authors on whom we were regarded as authorities in this little set and whose style was often unconsciously aped. It was thus that I rushed through Emerson, Carlyle, Macaulay, John Stuart Mill (everything but his Logic and Political Economy), Ruskin, DeQuincey, The Spectator-Tattler Series, Webster's Orations and some of Burke, Coleridge, Lamb, Tennyson, Wadsworth, Pope, Dryden, Byron, Bulwer-Lytton, much of Goethe and Schiller (in English), Shelley, Milton, Whittier, Longfellow, and many, I think I may say very many, more, but not Browning, despite many efforts. There were at least two of our group who read much more than I. During this time we studied and recited in Shaw's History of English Literature and another work of the same sort, the very name of which I cannot recall, nor can I a single item of the course. Very many of the above books I believe I should recognize to-day at sight by their binding and their type of dilapidation. One summer I made a great effort to memorize all of Tennyson's "In Memoriam," and in a number of the books I can remember the place on the page where other passages I sought to memorize stood. There was almost no class of English literature that we did not sample, except theology, mathematics, science and the translated classics, and the farther we got from the curriculum the better work we did and the more we knew. Perhaps I may add that I still have faint reading crazes as side issues, having in this way in very recent years read, usually after bedtime, all of Ibsen which I epitomized, everything but the last two or three works of E. von Hartmann, also Sudermann and Hauptmann, Nietzsche and a few French writers, viz., Voltaire, Guy de Maupassant and Zola. All this work is, of course, very superficial from the standpoint of the pedagogue. I never could pass an examination on one of all these works as examinations now go, nor of scores and perhaps hundreds of others that have flown lightly through my mind as diversions, any more than I could on all the plays I have seen in the theater. Often I so far forget as to start reading something I have already, perhaps not so very long ago, read before. I have certainly derived pleasure and I would feign believe edification from this source. At least, I would not exchange this habit of desultory reading in a field outside my specialty for the schoolbred habit of accurate and painstaking familiarity with a few things such as professors of literature inculcate, for this would greatly slow down my pace and cool my ardor. Hence, I refuse to accept the verdict of those professors in this field who think me an awful warning and I insist on taking their reproach that I have no style as a compliment.

In fine, the psycho-genetic theory gives a new and higher psychology and pedagogy of reading not yet worked out in detail, but the outlines of which can already be roughly indicated somewhat as follows: Its supreme function is not utilitarian, or to help us in all the vocational bread-winning activities of life, important as this is, but it is humanistic, cultural, liberal. It should aim to give vent to all the possibilities of the soul, most of which otherwise slumber through life and perhaps atrophy, and also to elevate and sublimate those impulses, passions and instincts which are so prone if neglected to grovel and perhaps to degrade or exhaust the psycho-kinetic energies or to take on crude superstitious forms. Reading should help the growth impulse or the push up of evolution which is the *fons et origo* of all advance. It is the great field for the higher psychotherapy that safeguards against the dangers of repression and arrest or against perversion and abortion of human powers. Human nature, e. g., is prone to *fears* of many kinds, which may be sudden in the form of panics, which may break out with fulminating and convulsive violence or may be chronic, subtle and unconscious. We all fear many things—lightning, disease, death, loss of good name, perhaps falling, insects or darkness—and most of us have our own little list of acute or attenuated phobias. Some of these are doubtless ancestral and inherited in the form of special proclivities. When these have been diagnosed they always suggest special lines of interest, and when by feeding them they are intellectualized and brought to consciousness they tend to vanish by being long-circuited into more spiritual forms, or, in Freudian terms, the submerged complexes and constellations that exist like foreign bodies deep down in the psycho-physic system are extradited or got rid of. Fears are thus educational possibilities of great worth and potency. Having explored them, the ideal educator can do very much by prescribing reading. Here is the crux of the whole problem and the art of the true physician of the soul will not be finished until he can prescribe aright. A book, or sometimes an article, at the right moment has often changed the current of a whole lifetime. We need and it would not be hard to collect very many cases in point. Now, it requires, of course, a degree of knowledge, a fund of experience, and perhaps an intuitive sagacity, which we have not yet attained to make the most and the best use of this method, but we can do it because we must, and we shall, when individual pedagogy can do its perfect work, although we grant this goal is beyond our present reach. If a boy fears, e. g., earthquakes, this fact is a great and challenging opportunity to an insightful tutor. He must be told of and led to the very best, and for his stage fittest literature on the subject, must read (but not unless he is strong) descriptions of the panic and horror of the great seismic catastrophes, volcanoes, floods, devastation, a little dynamic geology treating the causes, that his dread may deploy into the mental sphere, one function of which is to be a regulative of emotion. This is, to be sure, like internal vaccination, for intellectualization is always an attenuated culture compared with the blind convulsibility of the lower automatic levels. Weak natures may suffer by this process, imagination may run riot for a season and conjure up new terrors, other obsessions may arise and neurotic natures may be impaired, but normal, healthy individuals will soon experience relief just as toxic products often come to the surface in eruptions, but the deeper more central regions are relieved as the fear is evicted into consciousness and mixed with knowledge which draws out hidden evils like a poultice, making only the surface angrier. But the pain is essentially cathartic in the Aristotelian sense and the cure has really begun, and in the end the boy will emerge from his mild phobia with a precious little stock of knowledge and will have won from it all a new lifelong center of zest or a new apperception organ which may possibly incline him to subsequent intensive study in the larger field of geology, widening out from this center. Thus this fear has its potentialities which, utilized as a motive power to knowledge-getting, is of great worth. Such a cure may seem to an over-tender parent too severe, and indeed it may easily be too drastic for those tainted with neuroticism. Hence, individual prescription must always be very circumspect and with constant watching at every stage. It involves long, persevering and detailed personal effort vastly beyond what is at present possible for the majority of children. But it is the ideal method or that of the future. The mental pabulum for such an appetite should never be anything sensational or "yellow," but the appeal should always be made to reason and to science if ever so rudimentary. Thus one chapter in the book on the applied psychology of children's fears will muster the resources of all literature on earthquake fears as a pharmacopœia from which the expert physician of souls will select his prescriptions. The same is true of all other fears. Allowed to go their own blind way, they may not only limit but paralyze activity. But we must not forget that each item of timidity is a source of energy which humanity cannot afford to see wasted. Fears in the history of the race have been among the chief spurs to the knowledge which evicts them. Where, as often occurs, it brings new fears, it also thereby brings new motive to further knowledge. Fears of disease, e. g., have created the arts and sciences of medicine and hygiene all the way from the savage to the civilized state.

Love is a more favorable case than fear for this catharsis. Were it eliminated, what would literature be? The worst things in print and read secretly are better than the worst things secretly talked of. Here, too, the psychotherapy of pedagogy must be progressive amelioration. The young must read better things than they would naturally otherwise know or think of, and thus there is average progress up the scale from sense and passion toward Spinoza's intellectual love of God, of mankind, nature or being itself. Sentimentality is often and at this stage a wholesome alterative and cathartic of passions. The latter must not be entirely repressed but transmuted to purer metal. Perhaps at this stage some things in romance that excite and tempt may discharge and relieve baser instincts into the mental sphere of imagery that would otherwise break through all restraints within and without and sweep the young to vice. Many of the best things in life are secondary or tertiary sexual qualities needing only refinement. The stronger the passion and the greater the tension, the better, provided only it is rightly directed and safeguarded. One great weakness of our present-day pedagogy is that it inhibits and tends to choke the powers that it ought but is unable to properly guide and is therefore afraid of. It neglects because it cannot properly discipline them. But here, too, the best love poems and stories must be individually purveyed with the greatest psychic insight in order to accomplish the ideal end; but this theme needs a chapter by itself yet to be written, as indeed does each of the other great feeling groups.

Leaving this, however, for a work on the emotions now in preparation, let us reflect that from the genetic viewpoint man is literally a citizen of all times. Short as his span of years, he lives in every age. There are far more things old and very old than there are new in his psycho-physic makeup. The conscious intellect is essentially not only a recent but an individual affair, a product of each one's personal experience. The instincts and feelings, on the other hand, are very ancient. They are survivals of long past prehistoric ages. Poetry, for instance, is essentially archaic and lives, moves and has its being in the antique regions of our nature. Its tropes represent venerable old ways of looking out upon the world that prevailed long before modern culture began. It reeks with animism, fetichism, psychic atavism, outgrown superstitions and modes of mentation in its very metaphors, analogies and personifications, and conserves not only thought-forms but words and phrases more than even most teachers of literature dream of. Its symbolisms hark back to savagery or before and poetic license may defy every conclusion of science. In reading most poetry man reverts to the ancient days of his race, remembers its phyletic experience, falls back through millennia to the estate of his primitive forbears. Old echo chambers in his soul are opened and reverberate with voices that to the modern world seem strange and ghostly. This is well, for thus the man of to-day comes into and is kept in touch with his heritage, feels the Antæan touch with the earth from which he sprung as a rich harvest home of what his stirp has been, done, felt and even thought before records began to be kept, breaks away from the constraining present and expatiates over the vast realms of the life of his race and feels reënforcement, vastation and freedom from all individual limitations. What is true ideality but reviving the very best that has been, redreaming the old dream of that cloud of witnesses that preceded us, thinking outgrown thoughts, reliving lives that have gone out but are resurrected in our own imagination? Art, too, often sounds some of these same lost chords and enables us to see the world as the Greeks, Romans, Egyptians, and perhaps the kitchen-middeners, did. We get into rapport with crusaders, knighthood, cloisters and the rest, and feel elemental traits that lie far back of all these in dateless antiquity. Thus old battles, refought in fancy, temper belligerency in the young to-day, and their blood that needs to be stirred by conflicts comes to feel the thrills that are inevitable to it on the higher normal plane. The spurs of ambition, the panting of the heart for glory felt in the physical domain, are transmuted to ethical and intellectual forms, and the glow of admiration for the great deeds of others awakens the desire to merit the same praise for what the reader may do himself. Sympathy and pity, too, are guided to normal activities and to practical results by right reading. Hate and revenge may sometimes be almost sublimated into emulation. Thus reading ideally directed touches up all the rudimentary organs of the soul and either develops them as it should for their good or else the glow it fans them into for their one, only, and unique experience, evokes as only it can the higher power that is destined to supersede or control them. For the former the process has analogies with the homeopathic *similia similibus curantur,* and for the latter it embodies all that is good in but vastly transcends the culture epoch theory and practice. It is the true psychotherapy of ignorance and all the evils and diseases that troop in its train. This is the higher function of reading, its ultimate culture goal, and until we attain it we are still only seekers.

Finally, a word as to the self-pedagogy of reading in its relations to higher culture. The scholar, no matter how specialized, is to-day confronted by a mass of literature and must read for dear life or he is swamped. One of the first signs of old age in a professorship is getting behindhand or neglecting the latest work and that of younger men. When one does so, he might as well have recourse to either Carnegie's pension or Osler's chloroform. For the most alert, the function of judicious epitomes, reviews, yearbooks, etc., is increasingly necessary. Every scientific journal should stress the development of résumés of both books and articles, and indeed owes a duty if not its very *raison d'être* largely in this direction. As it is, there is much wastage of work done over and over again by those who did not know that others before them had covered their ground and reached their own conclusions before them. The ethical question of giving each rival due credit and setting forth all the best that he has done is always present. Those who appropriate other people's work without acknowledgment we always have with us. Perhaps they are importers of the latest foreign intellectual goods who sedulously strip off the maker's label and pose as themselves manufacturers of the wares they deal in. Perhaps one grows impatient of faithful reading and so fails to give due credit because he did not understand, so intent was he upon his own work. There is much work that never would have been done had the doer known all that others had achieved in his field. One may lack access to literature or in the midst of it lack the slight degree of practice and expertness to run down what is wanted through all the maze of indexes and bibliographies. Perhaps the academic librarians of the future will hold themselves responsible for this ignorance, whether on the part of professors or the writers themselves who so often with positive dishonesty run in copious book lists of works they have never consulted. To appeal to efficient and ideal library helpers for aid may seem like courting a fate akin to that of Tarpeia. Mental voracity involves, too, dangers of indigestion; and the combination of perfect powers of assimilation, on the one hand, and of independent effort of creative thought upon this material, on the other, is as high as it is rare. The first requires the plodding and unremitting toil of receptivity which culminates in mere scholarship and learning. The other demands both originality and a trust in one's own thoughts and courage to appeal to the world-wide consensus of the competent which sometimes almost seems to the more learned and therefore the more timid as a product of naïve ignorance. Now can knowledge evoke and not repress self-activity? He who would really add to the sum of human knowledge must first see to it that he begins where others leave off, and to do so one must cultivate the habit of reacting freely and vigorously to all one's acquisitions. These two qualities are as opposite as massochism and sadism, yet they must co- and interact at every step in the culture world of to-day. They do so happily in the greatest and best among us. Some of these unique leaders seem almost to have two souls, the one intent that no good thing done in the past is not registered and incorporated, and the other with pioneer aggressiveness facing the new world of things as they are to be.

As to the larger problem of academic literary culture in this country, I know no better discussion than that of Professor Babbitt, who writes from the standpoint of the older endowed New England university department of modern comparative literature in its relation to life somewhat as follows: Individuality to-day lacks unity. It seems as if we had exaggerated the reasonableness of human nature. It is hard to reconcile the head and the heart, which are said sometimes to "make faces"[1] at each other, to harmonize science and sentiment. We are torn between the attractions of monism and pluralism, between a Gargantuan hunger for knowledge that prompts students to amass microscopic slides and reference cards by the thousand, deluding themselves with the idea that this hand work implies head work, on the one hand, and the inclination to shirk the real labor of hard thinking and be as lazy as we dare, on the other. Now we are wont to specialize our individuality to the uttermost, and anon to have thoughts of cosmic dimensions, to become busybodies of reform and try to clasp the world, or at least all that is good in it, to our bosom. Some one has called the soil of our minds "like that of Massachusetts, very cultivated but very thin." Now we humanize animals and now bestialize man. Shall we follow Oxford and give pass degrees in three years and keep the best honor men four or more, or the American fashion of letting the best through in three years and retaining the dullards? Shall we become slaves of duty or of power? Shall we cultivate the feminine or the virile and aggressive sides of our nature? Shall we impose restraint or allow those who wish to run past all the red lights to do so? Shall we accept or impose discipline upon youth who deem all duty horrid, or does it stunt and dwarf faculty? Shall we admit the alternative of all or nothing, or inculcate the Aristotelian temperance, holding that the golden mean is the norm, and strive to fill up the entire space between too much and too little, either of which alone brings nemesis? Is it science or man, nature or God, the way of the world or virtue, necessity, fate and mechanism or freedom and responsibility, play or work, pleasure or duty? How, amidst all these alternatives demanding incessant choices, general and detailed, can we keep our souls integrated and avoid distraction, disintegration, or falling apart into multiple personalities, between which water-tight compartments may form? Most minds cannot face all these issues, and as education thus widens, the eternal choice becomes a diathesis. Young men regard everything as an open question and life as a problem of electives. Our scheme really elevates many in their own esteem above the modest sphere of life their nature prescribes, and therefore cultivates neurasthenia and not poise and repose.

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[1] Literature and the American College, by Irving Babbitt. Boston, Houghton, Mifflin & Co., 1908, 263 p.

Deep human instincts, wiser than any man knows, incline those unfit to seek many ways of escape. Some cultivate the indifference of a pococurante, or languidly decline or jettison interests that others feel, and so, like Malherbe, have their own loftiness measured by the number of things their stringent fastidiousness rejects. They decline all plebeian zests and perhaps erect some quaint " kiosk in Kamchatka " from which they contemplate the world and which they strive to make the fortress of their self-respect and to which it retires when buffeted to realize all its aloofness. This is all their own, and " No admittance " is inscribed upon the lintel. This is the shrine and palladium of their individuality. Others renouncing their ambition to originate, create, or lead, seek only to nourish, perfect, and enjoy in private their own personality and cultivate a " disciplined and selective sympathy." This is the most refined, humanistic, and ideal use of leisure. Such are void of all pedantry, snobbishness, or pretence. Their intellect and then their consciousness has been freed. They are not ashamed to wonder or admire and have no prejudices against expanding or contracting their interests. They are not hampered by partisan views in church or state, or theories of the cosmos. They belong to no school and wear the badge of no *ism* or *ology*. Even inconsistency is not a bugbear to them. It recks not whether they be called impressionists, pragmatists, empiricists, or idealists, neither do they care for the reputation of expertness, for that means exaggeration. Their equanimity is not subject to floods, catastrophes, conversions, or *débâcles*. They want to touch topics at the greatest number of points, and would indulge every higher aspiration of the authentic soul of man. Their intellect is pure and austere. They love to commune with the great souls of the past as expressed in books, without fear lest these make havoc with their sense of their own originality. They have no lust to live on the frontier of human knowledge, but would pass their lives amidst the fields cultivated by the most of the greatest and best.

The decline of belief in immortality which ascribes infinite worth to each person, the right of democracy which makes each a factor in the state and in society, the elective system which has extended itself way down toward the very kindergarten, and specialization which is increasingly necessary in our complex life—these are four influences that have to-day greatly emphasized individuality, made it cocky and almost insolent, and which have made us almost to forget the common lessons of human nature and culture. The sub-freshmen are sometimes anxiously looking to find some peculiar trait of their own, and are happy if they can at last attain the sense that "There can be none of that kind of which he is but he." Each must study the direction in which he leans and then fall in that way. The goal, says an educator who writes with some abandon along this line, is a different course of study for each man, so that the larger the line of pedagogic novelties a college can carry, the better. Sophomores turn their introspects to find their inclinations, convinced that there is talent somewhere in themselves, if they can only find it, that will enable them to live as none ever lived before. They must perhaps prospect long and carefully; and their first direction, to one who wishes to be great, is to be different. Such men often come to respect too much their own temperaments and even their idiosyncrasies. Some said of Lord Monbodo that, if he had the tail of an ape, he would have been proud of it. A sense of otherness, aloofness, detachment, makes some men affect bizarre opinions, and perhaps they are not quite happy if another agrees with them, and of course are mortally affronted if some wise old professor shows them that their flashy views were old when Noah built the ark. It must have been one of these men who broke off an engagement because the girl of his heart said to him, "You are just like other men." If such men affect literature, they revere writers like the decadent Ambrose Bierce (*cf.* Wiertz), who strives to invent new and pathological shudders by always writing of corpses, executions, and death in its many forms. They want to surprise us and make their readers stare and gasp, even if they have to be hysterical to do so. Just so some university professors have yielded to this strange love of calling paradoxes and unique peculiarities of view new discoveries. It is of such *poseurs* that Lowell said, "They cultivate all the nodosities of the oak without its strength, and all the convulsions of a sibyl without her inspiration." If it comes to style, perhaps they even affect Lyly's euphuism of "quaint coxcomberie and nimity pimity niceness," or are ready to philologize literature in order to attain their impressionistic ends; and society made up of such would be morselized or pulverized. Now a college ought to represent the precise opposite of these tendencies—it seeks general culture which assumes that there are certain constant, human norms, and that we must develop the vastly larger domains of soul in which all are alike. Nothing human is alien. In the humanities the ideal is to read widely, hard, and with abandon, to know the past and not be carried away by the charm of mere contemporaneity; to make race memory one of the greatest of the muses, as the Greeks did; to often ask, "What would the great of past ages, if we would commune with them in some houseboat on the Styx, think of us and our achievements?"; to realize that it is greater and better to be a man than to be a specialist; to remember that you are in your nonage; and to be content to serve the increasingly long apprenticeship modern life requires. Some one has said that life in this country is made up of twenty per cent of thought and eighty per cent of action, when it should be the other way, and that in Germany the two have kept pace. Our method is to muddle along, act first, and to think, if we do so at all, afterwards. One definition of a general scholar in society is that no one would suspect from his conversation his profession or his experience, but would only realize the genuineness and breadth of his sympathies and that he could appreciate more than criticise. We must select that which the suffrages of the wisest men have voted to be the best, for this makes things classic. Only thus can we discover "our own true, deep, buried selves, being one with which, we are one with the whole world." The knowledge of the past is the only way to strengthen our grasp upon the present. This is hard and sometimes discouraging; even ignorance has been praised as the father of boldness, self-confidence, and even of originality. Even Goethe said, if he had known all there was written in Greek literature and history at first, he might never have ventured to write a line. Men need experiences of this feeling to keep themselves receptive, humble, docile, by occasionally reflecting that about all the best things have been said and the greatest deeds attempted. This sense sometimes evolves into a mild, sweet, listless ennui a little melancholia. This is the acedia or spiritual despondency of the scholar. This is one cause why the business of learning makes fellowships seem, as some one said, like "lazyships." The ingenuous youth must entertain his soul and invite it to loaf. It is hard amidst all the incitements of our universities and colleges to print prematurely. But this kind of liberal study alone gives breadth and unity of soul, which is the only sound basis of specialization later. It is not effeminacy, although women in our colleges are coming more and more to represent the old classical ideals of humanistic culture.

CHAPTER XX

PEDAGOGY OF DRAWING

Multiplicity of theories and methods—Statistics of drawing in public schools—The present situation—Studies of children's drawings—Some inferences from these—Color; color names; development of color vision and color preferences—Primitive art—Genetic æsthetics—Spontaneous drawings of the insane—Æsthetic theories—Art museums—Pedagogical conclusions.

In no topic of elementary education have the insights won by child study been so revolutionary as in drawing. These studies have been numerous in all civilized lands and have already led to a reversal of many old practices, especially in this country. The old systems were wrought out with great pains and were masterpieces of old-fashioned logical curriculization with well-graded steps beginning with the kindergarten material, passing from mathematical lines and angles slowly on to elemental life forms, but ignoring all phyletic and ontogenetic steps. As the importance of these latter were slowly recognized, the old schemes were first modified by more and more concessions until they finally broke down under the strain. In their place there came a period of individualism in which many new departures of the most diverse sorts were evolved. Some found special virtue in the pencil, others in charcoal, chalk, brush, blobwork. Pen, color, etc., came here early, there late; now, emphasis was placed upon copying pictures in a graded series. Sometimes cats, birds, and other animals were developed ingeniously from simple lines cleverly connected to bring the surprise of recognition. Outlines in this system are made few, bold, and strong, and in that, shading is more prominent. Perspective came now early, now late. One scheme began and almost ended with flower and fine ornaments. Some emphasized children and themes from child life. Some sought excellence by filling in faint outlines or connecting dots. Drawing became associated with paper cutting and pasting. Some saw great virtue in story pictures and would connect drawing with reading. Indian life or everyday themes have had many reproductions. Some have advocated humoresque features and seem to think that because children's pictures looked funny to adults, their authors felt them to be so. One found virtue in having children, not adept in the art, copy the drawings of those of their more apt classmates. One scheme begins with large circles drawn from the shoulder on the blackboard, another finds new pedagogic virtue in having children write mirror script with the left hand, while the other hand is writing normally. One drawing course advises the use of the drawings of cave men as copy, that the child may literally repeat the artistic life of the race. Now industrial, now æsthetic elements have dominated. Some think that at a certain stage everything drawn should be reproduced in paper, pasteboard, wood, clay, wire, or cloth. From this era of individual pedagogism we are now slowly emerging, but we are still far from a settled consensus. If the latter ever comes, it should be a very complex scheme with many variants, for we shall not profit by this age of diversification if we do not get from it the insight that there is no one way best for all and that all systems are wrong if they become rigid.[1]

It is nearly forty years since art education was introduced into our public-school system. Now about one quarter of the states require drawing; ten states maintain scholarships in the department; forty-one states, with their 138 normal schools, give some instruction in art. Massachusetts and New York employ state supervisors and the former has had a normal art school since 1873. New York has loan collections of wall pictures, photographs, and lantern slides. Over ninety per cent of all the cities of over 4,000 inhabitants in the country require drawing, and nearly three fourths of them employ supervisors or special teachers. Of 620 high schools, 258 require and 314 offer art courses. Art in some form is usually taught in industrial and evening schools. Since 1892 a movement toward schoolroom decoration has swept over the country (instigated by Ross Turner). This work has been led usually by drawing teachers, and of the large sum spent barely five per cent has come from public funds. In 1908 there were 369 organizations, societies, and museums to improve public taste. Some hold annual exhibitions, publish bulletins or leaflets, and some emulate public libraries in gathering photographic reproductions of great works of art for the benefit of the public. There are forty-seven regular publications given to this subject, and very many others in which art often appears. The total annual expenditure for art instruction in this country to-day is probably not less than $12,000,000.[1] Despite this enormous expenditure, the situation here is far from satisfactory and critics abound. One says of the results of an entrance examination to a normal school, "There was not one correct drawing in the entire set." Another says, "Art to children who have taken our public-school courses remains unknown." Still another says that the grade children as a whole draw better than those in the high school who have continued their studies. So that to try to stimulate the work of lower by higher grades, as is often recommended, would mean degeneration. In the many studies of favorite school topics which have often been made in this country, drawing stands low in the scale of favor with children. A state inspector, reviewing the work of the schools in this field, says, "The results are not much of anything." And another in a large city declares that most children "receive little or no benefit of their drawing lessons," and that efforts have been misguided, and yet another teacher in a girls' college says that pupils come to her drawing lessons "with the power of observation hopelessly atrophied."

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[1] Of special importance are the proceedings of the three international art congresses already held for the development of drawing and art teaching and their applications. The last, or third, was held in London, August, 1908. (See Transactions of the Congress, edited by C. M. Mathews, London, 593 p.) At Paris, where the first congress was held in 1900, there were 30 delegates from other countries and 516 members from 15 different countries. At the second, in Bern, in 1904, there were 172 delegates and 823 members from 21 countries. At the third, the membership was 819, including 299 delegates, of whom 94 were appointed by their governments and representing 38 countries. Their exhibitions covered 60,000 square feet and showed the work of 27 nations.

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[1] For these facts see Henry T. Bailey, Instruction in the Fine and Manual Arts in the United States. United States Bureau of Education, Bulletin No. 406, 1909. 184 p.

The modern interest in children's drawings began with artists and æstheticians, and was then taken up by pedagogues, psychologists, and historians in this order. Great collections of free and spontaneous drawings of all ages have now been made in Munich, Dresden, Leipzig, Geneva, Budapest, Bremen, and elsewhere, and some important books[1] as well as many monographs have been based upon them. From these studies it appears that individual differences are immense. Drawings reveal the child's psychic life in an extraordinary way and show its motor development, the directions of its interests, etc., and prove overwhelmingly that current methods of school instruction need radical revision. Sometimes children excused from drawing classes for incompetence, when allowed freedom, show positive genius. Boys distinctly excel girls of the same age. The latter more rarely draw figures in motion and still less often attempt humorous themes, are better in conventional class-room courses, but inferior in originality. This marked sexual difference cannot be due to phyletic racial experience. Boys sometimes show early and often great talent for architectural or technical drawing that implies great observation and originality, while some are mere copyists with no power of initiative. Nagy has shown a parallelism between the drawings of children and of adults who could not read or write. How pleasure and skill in drawing develop, what relation exists between this gift and general ability in active or passive education, the causes of great talent and great defect, how the untaught child develops graphic power, what elements of expression actually appear in children in each of the sequent school years—these are the questions on which still more light is needed but which doubtless will be forthcoming.

The drawing situation is just now a good deal alike in every civilized country, all of which seem to be emerging from a rather chaotic individualism toward the era of a few rather well wrought out and more or less widely followed systems in this country, taking their departure from Prang.[2] Here, perhaps, belong such schemes as those of Taylor,[1] rather influential here, who stresses decoration, and still better J. Liberty Tadd,[2] who gives us an introduction to all the plastic arts and emphasizes the large ambidextrous blackboard work. In Europe, Teubner[3] has a rather clever course, beginning with paper cutting, pasting, folding, pricking, perforating, weaving and braiding, pasteboard, geometrical work, useful articles, book covering, binding, wire, scroll and saw work, with burnt wood, charcoal, stenciling, painting flower pots, eggs, tablets, work in clay, pastel, fruit, dough, glass, copper, wire, paper, etc. Micholitsch[4] gives a very compact systematic scheme introducing to all kinds of plastic arts. Löhle[5] advocates for the first work in drawing subjects connected with the lesson material, allowing each child to draw from memory or imagination anything he pleases within the assigned subject.

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[1] G. Kerschensteiner. Die Entwickelung der zeichnerischen Begabung. München, Gerber, 1905. 508 S. mit 800 Figuren in Schwarzdruck und 47 Figuren in Farbendruck. Dr. S. Levinstein. Kinderzeichnungen bis zum 14. Lebensjahr. Mit Parallelen aus der Urgeschichte, Kulturgeschichte und Völkerkunde. Dazu 168 Figuren auf 85 Tafeln und 18 Tabellen im Text. Mit einem Anhang von K. Lamprecht. Leipzig, Voigtländer, 1905. 119 p.

E. Claparède. Plan d'experience collective sur le dessin des enfants. Archives de Psychol. (herausgegeben von Flournoy und Claparède), Janvier, 1907. Tome 6, pp. 276–278.

[2] Prang Course in Art Education for Primary, Intermediate, and Grammar Schools. Boston, Prang Ed. Co., 1893. 45 p., with many supplementary pub.

In Austria, art education for children has now a monthly organ (founded 1904), *Kind und Kunst.* It is printed on elegant paper with nearly fifty pages, quarto, each number containing very many illustrations of many kinds. Besides articles, some of which are from well-known authorities in art, philosophy, and education, there are very many reproductions of noted paintings; photographs of dolls of many kinds, ages, and lands; toy houses, illustrated fairy tales, children's play-rooms and houses; children's drawings, children's pets; manual training, music, etc.; many of the pictures are colored. This publication marks a very distinct advance of interest in the æsthetic development of children and cannot fail to have an important influence in this field. Every educator having seen it will at least wish it success. In 1892 the geometric method was introduced into the elementary schools in Austria and perspective drawings of wood, fruit, plaster models, historical ornaments, etc. Nowadays all are trying to modernize this work by drawing real objects, although the movement has not yet permeated the *Volksschule.* Courses are given in vacations in many places, not only at Vienna but at Prague, Trieste, Innsbruck, etc. This drawing is being stressed in the normal schools. Emphasis is laid upon conscious seeing and appreciation as well as on rapid, graphic depiction of what is seen. The relations of drawing and history are emphasized. Visits are made to art schools, and Jozef Strzygowski, who has lately been called to the University of Vienna from Graz,[6] is the leading professor in this topic. An important factor is the *Kunstgewerbeschule* and Museum and also a *Verein* of Austrian teachers of drawing (1892).[1] The topic of teaching drawing has been a very vital one and actively discussed for ten years. Visiting museums is now greatly stressed, also school ornaments.[2]

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[1] Edward R. Taylor. Elementary Art Teaching. London, Chapman, 1890. 166 p.

[2] New Methods in Education: Art, Real Manual Training and Nature Study. N. Y., O. Judd Co., 1899. 432 p.

[3] Des Kindes Kunst in Schule und Haus für Handfertigkeit und Phantasiebildung. Oschatz, Krasemann, 1907. 40 p. and 37 pl.

[4] Der moderne Zeichenunterricht. Wien, Pichler, 1906–07. 2 vols.

[5] Der Unterricht im freien Zeichnen. 5th ed. Gebweiler, Boltze, 1907. 103 p.

[6] See his Die bildende Kunst der Gegenwart. Leipzig, Quelle & Mayer, 1907.

Numerous studies of children's drawings have been made which have brought out important genetic principles, but little or no application of these to the pedagogy of the subject seems to have been made. A few typical examples of the more important are here epitomized.

Dr. H. T. Lukens[3] collected 3,400 drawings by children from two to sixteen years, including a number of extended and sequent collections of drawings of individual children, for years. He found striking analogies in the pictorial evolution of man between the child and the race. In drawings of the human figure, the evolution is as follows: in general, first comes the head, then the eyes, legs, feet, mouth, nose, ears, the face being drawn in full and profile coming in much later. The clothes are drawn over the body and appear diaphanous. When new features come in they are much emphasized—that is, drawn large and with detail, such as buttons, watch chain, hat, glasses, beard. The drawing of animal outlines also has stages more or less parallel with that of the human figure, head and legs often preceding body. There is constant danger of arrest at some low stage of skill, into which the child is prone to settle habitually, resisting further development. Thus this kind of arrest in conventionality must be vigorously antagonized. Barnes, Cook, Sully, and many others have verified the chief stages from formless scribble up.

Very striking are the analogies between drawing and speech. Automatic reflex cries are like aimless scribble. Imitation of meaningless sounds and the child's babbling in return when addressed suggest imitations of movements of other persons' hands. The stage of understanding words, but speaking only a very few, is correlated with understanding pictures before the power to draw. Repeating words as sounds is copying to get right effects. Words expressing thought are like picture writing, and perspective and other technique like grammar. Children often prefer to draw absent objects because present ones need no representation. Perhaps bold lines from memory may be the best introduction to this work. No matter how models sit, children draw a full face and seek to give linear representation of all they know of the thing, or a subjective rather than an objective picture. The child reproduces associated things, draws large and clearly that on which his attention is focused. Thus his first drawings lack proportion and perspective and unity and are "form synonyms for thought or an extension of gesture." The child sees in fancy what the object only hints at, or looks through the drawing at an imaginary picture. One of the best features of these schematic child pictures is a tendency to firm continuous lines which mark the waning of the scribble age. Some children draw sounds, wind, etc. Adults often have childish features, and animals human ones. The order of parts of a man drawn perhaps follows that of physical self-consciousness.

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[1] See Das Jahrbuch für den Zeichen- und Kunstunterricht, hrsg. von Georg Friese. Also proceedings of the third Zeichenlehrer-Kongresse in London, 1908.

[2] F. Suher: Kunsterziehung in Oesterreich. Zuid en Noord, 1ste. Jaar, No. 2, 28 Februari, 1910, pp. 97–105.

[3] A Study of Children's Drawings in the Early Years. Ped. Sem., Oct., 1896. Vol. 4, No. 1, pp. 79–111.

Children often like to look at and more or less understand pictures early in the second year. They care most for those that have a story connected with them, and want their pictures read. Spontaneous drawings, too, are an excellent revelation of the contents of children's minds and sometimes broaden their interests and sympathies, and may even take the place of doll play. Often they attain surprising results in depicting circuses, robberies, fires, battles, shipwrecks, which they have perhaps played and acted out. Their drawings are not logical. They first make the house and last the ground on which it stands, or draw a man and later make a chair for his support. They must draw what they love. In one case, forty-four per cent of their spontaneous drawings are of the human figure. Picture writing is very common before children learn to read and write. They often draw by fits and starts, perhaps scores of pictures in a week or a month, and then nothing. Barnes found that courage to express ideas through drawing increased until thirteen or fourteen and then declined. Little children are in general freer to express themselves before self-consciousness is attained, but if they cannot draw before the end of the ninth year they will not learn to do so in the public school. The drawing of some has deteriorated rapidly under instruction, the system of which kills interest and destroys the desire to draw which is a genuine instinct. Children like to draw illustrations of stories and concrete things, which must not be taken away from them in order that they be precociously taught to see lines only. Instead, therefore, of current methods, the thing for kindergarten and lower grades to draw is the human figure, and vastly more freedom and individuality are needed. Geometrical lines are ghostly and wooden. Things in motion are more interesting, and perhaps Ruskin is right in saying that the child should be limited to the voluntary practice of art. The prevailing methods that begin with mathematical forms, cube, cylinder, etc., are stultifying and not only destroy the natural zest and ability to draw, but take away the power to enjoy art and to understand nature, geography, history, literature, which it is one object of art to inculcate.

W. R. Hart[1] showed twenty pictures, chosen largely for their subject matter, to children as follows: When they were seated and each had written age and sex, four were shown, and they were asked to select one without whispering or pointing. Then they selected what they liked next best. When each of the four groups had been thus passed on, they were asked to select their favorite group. Not only children from the city schools, but students from the psychological class in the university, joined in the tests. Boys preferred battle scenes with plenty of action, pictures with dash, etc. Girls referred less to the spirit of the picture than to some secondary element. Color is a very controlling element in the lower grades, and equally so for boys and girls. It loses its influence as the children grow older, but faster with boys than with girls.

F. Burk[2] clearly sets forth how the school has failed to accomplish very valuable results in drawing because it has used the logical as distinct from the genetic method, and thinks that nowhere is greater violence done the child's nature by current pedagogic methods. The old pedagogues found that drawing was used in industry, in art, and as an aid to observation. Therefore they abstracted geometric form and devised an order of mathematical simplicity until form is quite abstracted from nature. At this point the child generally leaves school and must get back to nature, if he does so at all, unaided. Thus drawing must be a grammar before it is a language, and, indeed, this is almost the axiomatic principle of the old pedagogy. The type forms are, if not divested entirely of all that is of interest, used in order—line, circle, cube, sphere, and later these are applied to apples, kite, cross, etc.

Scribbling.—The child is well on in its third year before his scrawls begin to show resemblance to things. The first interest that chiefly dominates is muscular, which is perhaps ever prominent, but is very strongly developed early in life, after one and more often two years of scribble. The interest is in the act, not the product. The next *imitative* stage begins with interest in repeating movements that others have done. Probably, however, this stage calls for no movement which had not first developed in the preceding impulsive period. The child now looks at the movement of the hand rather than at the picture, is beginning to use the wrist and perhaps even the fingers rather than the arm as a whole. The sight interest probably comes later than either, although the child can see and interpret pictures in a crude way in its second year. There is no sudden transition to visual control, but it is very gradual and the muscles are probably dominant for years. The child is inaccurate. Its movements always tend to break away from visual and other control. There is great difference of interest in the subjects chosen for drawing, and this causes great difference in the results. The child desires to draw human beings, generally in action. Drawing teachers usually demand complete visual control, but the children draw lines symbolizing the direction birds fly, draw the wind, draw a zigzag line representing the dance a person is engaged in, and even gross errors are repeated after correction and explanation, showing how dominant muscle habits are. If we persist in our present mathematical methods, drawing ought to be forbidden till the ninth or tenth year, and then it would be studied very little by most pupils. Interest versus logic is now perhaps the most comprehensive issue between the old and the new education. Young children draw anything with abandon and pleasure. They do not use their eyes much, no matter how difficult the theme, but draw their own image of it with about as good success as if there were no model. Children care nothing for accuracy here, which is the ideal of the methodists. Their order below ten years of age is the human figure, then animals, plants, or houses, then mechanical inventions, geometrical designs and ornaments. Children's work is essentially pictorial and not decorative. Thus Ricci declares that art as such to children is unknown. Froebel is wrong, therefore, and the child enters the educational field by the door of literature rather than by that of mathematics. Their pictures have all kinds of inconsistencies and impossibilities. In drawing a person before them, it makes no difference to them whether his back or face is turned toward them. They draw what they know—two sides of a house, two eyes in a profile face, or one eye on the other side of the paper. They make the body show through the clothes, and the further leg of a man show through the sides of a horse, the feet through the shoes, the stomach and lungs through the ribs. Barnes found in a collection of over 12,000 human faces drawn by children, that at six years there were twice as many full faces as profile, and at thirteen twice as many profiles as full faces. All these errors are found in the history of the race. Thus the logical order by which an adult thinks is almost the reverse of the historic. The child abhors everything conventional or abstract.

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[1] "Children's Choice of Pictures." Northwest Journal of Education, July, 1896.

[2] The Genetic versus The Logical Order in Drawing. Ped. Sem., Sept., 1902, Vol. 9, No. 3, pp. 296–324.

Schuyten[1] obtained 4,000 drawings of persons from boys and girls between three and thirteen, or about 100 drawings for each half year of age. These he studied, in order to determine the degree of their perfection for head, trunk, arms, legs, etc., for each of which he sought to deduce the average qualitative coefficient in each group. To this end he studied each feature in more detail than anyone else had ever done. In his quantitative analysis these drawings were measured to the fraction of a millimeter in order to follow their amplitude spontaneously given at different ages, and finally he measured the artistic development by comparing dimensions of the figures drawn by the children with the canons of art; for instance, length of the head one eighth that of the body, the three parts of the face as one to three, the length of the arm and foot compared to stature as three to eight and one to six, the length of foot to hand as three to two, the hand equaling the length of the face, etc. He sought also to study types for each age, but did not succeed in attaining satisfactory results in this respect, although he holds that they exist. He also reproduced *in petto* many forms of head, arms, trunk, hands, etc. All the boys from five and all the girls from five and a half drew "their own" little figures. They usually commenced with the features of the face, at this age often drawn in profile. In one type the children draw that which strikes them most, and in full face. In a second stage they commence to draw the features that interest them in profile, but do not abandon in doing so the face type, so that these are often strangely mixed, and only in the third stage is profile representation fully developed. Girls remain longer in the first and second stage, and the third is less developed than among the boys. In one table Schuyten gives the parts of the body which the children are most interested in. In the head, the eyes lead; then follows the nose, the mouth, etc. The legs come next with a double line, and so on. This table is very interesting but needs to be studied in detail to be understood. In general, primitive modes of representation of essential parts are longer maintained by girls. The Philadelphia children of Lukens' study are shown to have drawn a little better than those of Antwerp. Size, both height and breadth, increases with age, but, strange to say, when the children enter the primary school size at once drops in a remarkable way. Boys in general draw taller and girls the broader figures. With boys the order of length is legs, arms, trunk, feet, head, hands; and for breadth, trunk, head, legs, hands, arms, feet. It is very plain from this that didactic effort should be directed to give pupils a better comprehension of the proportions of the divisions of the body which have been pretty well established, although artists from different schools differ somewhat. It is remarkable to see the great variety of contours which children produce and with apparent satisfaction. The heads may be almost triangular, a semicircle, mushroom-formed, greatly elongated up and down, shaped almost like a house. While the eyes are best represented, not only they, but mouth and nose, may appear only as a dot, a circle, a straight line, a square, triangle, etc. The body, too, may be shaped like a heart, a kettle, a tree, may be a square, a rectangle, or circle, while the legs may be wavy, crooked lines, single or double, occasionally, though very rarely, three in number. The feet may be a knob, like an inverted cross, a hook; may be omitted entirely, or appear as a trident, a bulb, while the hand and fingers, which in the drawings reproduced number from two to twenty, may appear as rays of a star, as a many-pronged fork, as a whorl, as sprigs growing from a central stalk. The development of knees and elbows comes rather late and there are the most bizarre and original designs. Schuyten also made an investigation in which he compared normal with arrested children. While the difference was not very marked, he found in general that the backward children drew rather better than others.

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[1] De oorspronkelijke "Ventjes" der Antwerpsche Schoolkinderen. Paedolog. Jaarboek, 1904. Vol. 5, pp. 1–87.

Lobsien[1] repeated Schuyten's experiments with 452 pupils from nine to fourteen at Kiel. The results of these experiments indicated that the memory of real objects showed a marked rise up the grades, but a rise that was broken by periods of arrest and decline perhaps through a whole grade. These studies really shed light upon both observation and memory, and they indicate that at about sixteen visual memory culminates and that its curve is quite as likely to fall as to rise thereafter. In girls, too, there is a great leap from sixteen to seventeen when a climax is reached with no progress afterwards. Törren's test on 190 children from four to twelve with 103 pictures of 17 different objects was that each successive one showed more complete features of the object than did the one before and children were given specific questions to answer, which showed that the power of exact observation and memory at ten are all ripe and ready for discipline and that the two or three years before the dawn of the teens is its very best season and that there is little development afterwards. The power of observation can be greatly improved by training and, as Fitz has shown, experimentally, children of eight can draw lines and angles about as well as adults. Children, however, must draw with interest and enthusiasm and plenty of emotion, and all training must have an individual cast. Gifted pupils may habitually observe analytically, may have marvelous memories which are almost visualization, or else work out their results reflectively by analogy. Mental construction cannot be repressed. The visual and reflective types are very distinct and need different treatment. The parallelism is very imperfect between age and grade and excellence.

Netschajeff, Director of the Pedagogical Laboratory at St. Petersburg, whose work is reported by Bernstein and Bogdanoff, tested 180 children by showing 12 pictures of the same size and coloring, five seconds each and then requiring them to be selected from a group of 36. His results showed that accuracy of recognition increases with age. Bernstein and Bogdanoff[2] tested 286 children from seven to fifteen years, using groups of geometrical figures for fifty seconds. A group of 9 forms was first shown and then a group of 25, containing the original 9, which the pupils were asked to select. The results showed progressive power of observation and memory up to fifteen, thus agreeing with Netschajeff. The authors, however, did not find the temporary inhibition of the development of memory at the dawn of puberty found by Netschajeff and other observers.

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[1] Marx Lobsien, Kinderzeichnung und Kunstkanon. Zeitsch. für Pädagogische Psychol., Pathol. und Hygiene, 1905. Bd. 7, S. 393–404.

[2] A. Bernstein und T. Bogdanoff, Experimente über das Verhalten der Merkfähigkeit bei Schulkindern. Beiträge zur Psy. der Aussage, 1904. Bd. 2, S. 115–131.

In most studies of children's drawing *landscapes* have been comparatively rare, but in the following study by U. Loreta[1] there is an exception to this general rule. His study was of one child, his own son. Up to the age of six years, the only artistic manifestations of the child were the scribbled drawings characteristic of all childish art. Representations of locomotives and railroads were preferred subjects, very few persons or houses with smoke being introduced. At the age of seven, he brought a design done in colored pencils, which showed unaccustomed care in proportion and harmony of tint. This suggested supplying him with brushes and colors and watching his spontaneous development. The child in question did not attend school, his older brothers were not interested in drawing or painting, and suggestion of any kind was carefully avoided by the parents. A hundred pictures, which were produced in the course of three months and a half (days of bad weather in winter and spring when he was obliged to remain in the house), were kept. These were all spontaneous and without models at the time. The subjects were for the most part mountain landscapes. A few represented open country, thirty-five had two or more small houses, and some a church with a bell. In only one was a man represented and none of them contained animals. It should be noted that the child lived in a hilly region and had often spent some time in the mountains. In the earlier drawings no regard was paid to perspective, but in the later ones an idea of perspective is evident. In the early ones the sky is left whole, but the following sketches show progressive improvement in selection and grading of colors. A step in advance, to which the child himself called attention, was in designing and coloring trees beyond a house so that they were partly concealed by it, thus showing a mental process of abstraction. Throughout the three months and a half there was a spontaneous progressive development, the only external influence being praise of especially good efforts, to which the child was extremely sensitive. The father does not regard the child as in any way exceptional (though the colored plate contained in the article certainly shows rather an unusual development for his age) and thinks that between the ages of seven and ten, children are not generally lacking in appreciation of landscape beauty and that furnishing them with the means of producing colored representations has a tendency to encourage the spontaneous development of art instincts. He adds a plea for tests on children of this age as a possible means of throwing light on the development and educability of the æsthetic sense.

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[1] Contributo allo studio dello svolgimento del senso estetico nel fanciullo. Rivista di Psicologia, 1905. Vol. 1, pp. 246–250.

W. A. Lay[1] undertook two series of observations, one in modeling and a parallel series in drawing, on twenty-eight girls and twenty-three boys of six years of age who had been in school only eight weeks. They were mostly children of laborers, none of whom had had any experience with modeling. The children were each given a piece of clay or plastilina and told to do anything they wished with it, and they were simply observed as to attention, power of sustained effort, imitation, fatigue, and so on. During the first five minutes the clay was looked at, touched, smelled, patted. Soon one child began to roll his piece in a form of a sphere and twelve imitated him. In ten minutes the feeblest boy and the dullest girl only had undertaken nothing. The rest were very active and interested. The objects they finally made were photographed: a flag, an altar with many candles, basket with sausage, a bit of money, a steamer, a fireplace, window, moon, hen on the nest, elephant, mushroom, apple, swan, pig, man, pillow, milk can, snake, bed, etc. Some changed their plans. The twenty-three boys made in all 61 objects, of which 29 were different; girls modeled 83 objects, of which 30 were different. The boys made 36 drawings of 17 different objects; the girls 50, 18 different objects. Fifty children, in two and a half hours, made 230 things, sampling almost every domain of nature and human life; in an hour and a half, 145 things, of which 59 were different, and in one hour, 86 things, of which 35 were different. Boys preferred to draw men, devils, ships, animals, such as elephants, apes, snails, hens, while girls made baskets, balls, dolls, pans, gas meters, and so on. To ascertain whether the children molded objects from their environment or made original creations, Lay investigated their picture books and found in no case any relation between the modeled objects and the pictures. On further investigation most of the objects could be traced to some experience of the child usually within a few days or weeks, which shows that impression tends to expression. In general, the better students produced the more difficult objects. Certain pupils seemed to be unconsciously leaders and pattern-setters or stimulators. Five of the children of low rank and thought to have poor ability showed in this new field a surprising degree of independence that much surpassed the achievements of those whose studies ranked them in the first half of the class. Two of these girls in modeling led their class. Thus, when the pupils were marked for this achievement a very new gradation was established, and this experiment itself tended to attract the favorable attention of teachers to those who stood high on the new rank list, and in some cases to revise their judgment concerning them. Efferent achievement is a very different thing from receptivity and usually requires more active assimilation or a higher degree of elective affinity between the subject matter to be appropriated and the result.

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[1] Die plastische Kunst des Kindes. Die Exper. Päd., Bd. 3, Heft ½, 1906, S. 31–54.

After an hour's work most of the children voluntarily remained at the desks with the clay through the recess, although their mates were playing and laughing outside the window. An hour and a half after the work began there were signs of fatigue. This is remarkable when we consider that in the first school year children are fatigued in from fifteen to thirty minutes with any one of the three R's. After an hour and a half of this work the fatigue was less than at the end of the shorter periods with the regular work. The reason for this sustained interest without a sense of fatigue was partly its novelty, partly its freedom and variety, and perhaps partly that no repetition or improvement was demanded, but everything was independently initiated. Most of the children simply rolled or patted the clay. Some, however, used a pencil or pressed it against the edge of the board. There is certainly great advantage in the use of three-dimensional work for the mind and eye. It comes in close relation with work in art and nature, but here, too, living forms predominate and mathematical forms come later. Art itself is only the further development of the same kind of activity which these children show, in which both the imagination and the hands are active.

Levinstein's interesting, unique, and expansive volume,[1] with 85 full-page tables and 18 tables in the text, and 169 drawings added to the 119 pages of text, seeks to trace the development of drawing from the very beginning in children up to the fourteenth year, with parallels from the records of primitive man, culture history, and folklore. The whole is a much amplified dissertation, wrought out with the aid and suggestion of Professor Lamprecht of the University of Leipzig, who has seen the importance of a study of childhood for his department of culture history, and has issued an elaborate questionnaire in various languages, asking for specimens of children's drawing as material for his general history of mankind. The human figure is the shibboleth of art. Thus, basing on the 3,400 children of Lukens, our author constructs a number of curves which show the following: At four years, less than 40 per cent of the children attach feet to their human figures, while at five, 83 per cent do so, and from this point on to thirteen the increase is slightly more regular. At four years, arms are attached in 45 per cent of the drawings; at five, in 67 per cent; at seven, in 80 per cent. The body begins with 50 per cent at four years, springs to 82 per cent at five, 92 per cent at six, and thereafter is more common. Another table shows that the beard, beginning with 1 per cent at four, rises to 26 per cent at five, and at twelve attains its maximum of 60 per cent. Hair is represented by 6 per cent of the children at four, by 26 per cent at five, progresses very steadily from six to ten, when it has reached 70 per cent. The neck is drawn by

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[1] Kinder-Zeichnungen bis zum 14ten Lebensjahr. Leipzig, Voigtländer, 1905. 119 p.

8 per cent of the children of four years of age, by 22 per cent at five, by 79 per cent at ten, by 93 per cent at thirteen. Legs with outlines and not mere lines begin with 17 per cent at four and at seven have reached 88 per cent. Eyelids or brows begin at 9 per cent at four and progress with great steadiness to 87 per cent at nine years of age. Arms have outlines in the drawings of 6 per cent of the children at four, and progress rather steadily to ten when they have reached 79 per cent, at thirteen 91 per cent. Feet are in profile in 15 per cent of the cases at the age of four, 54 per cent at the age of five, 87 per cent at the age of nine. The nose is seen in profile in 6 per cent of the drawings at four, 34 per cent at five, 79 per cent at nine. The arms in profile appear in 1 per cent of the drawings at the age of four, and progress more slowly, reaching only 39 per cent at eight, and 70 per cent at thirteen. Eyes and mouth in profile begin with 2 per cent at four years and advance gradually to 71 per cent at thirteen. The rump in profile begins with 1 per cent at four and ends with 62 per cent at thirteen. Young children usually draw the face in a full front view, but at the age of four 4 per cent of them introduce some profile, some heads being drawn with some features, especially the nose, both in profile and in front. At seven, 34 per cent show transition stages, and from that age, and especially from nine on, the transition features are dropped out and the profile, where presented, is consistently such. The representation of the hand begins at four with 32 per cent, and at seven has reached 76 per cent, and reaches its apex with 89 per cent at eleven. Buttons begin with 30 per cent at four and progress rather steadily to 81 per cent at eleven. The hat, in pictures of women, begins with 24 per cent at four, 49 per cent at five, and at ten has reached 90 per cent. The dress of women begins with 16 per cent at four, and advances rather regularly until at thirteen it appears in 99 per cent of all the cases. Decorations of the woman's hat begin with 14 per cent at four, have reached 28 per cent at five, and thence advance pretty steadily to 71 per cent at eleven. A well-known nursery poem, translated from "Struwwelpeter,"[1] used by Barnes and others, entitled "Johnny Look-in-the-air," recounts the troubles of a boy prone to gaze upward, who tumbles over a dog. Once, when watching the swallows, he fell into the river where

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[1] This book, which derives its name from the first doggerel poem contained in it, deserves a special note. At Christmas, 1845, a German physician in Frankfurt, Heinrich Hoffmann, sought long among the shops for picture books which he thought suitable for his three-year-old son, but finding none brought home a blank book and told his wife they would try and write one. Called often to attend children, he found them so alarmed at a physician that diagnosis was difficult, and so learned to make rough drawings and write doggerel rhymes that took away their fear. Revising these, he found that he had a number of sheets which he finally stitched together and bound, as a Christmas gift for his son. He was not surprised that children were delighted with this book, but he was astonished to find

three fishes wagged their heads, and whence he was rescued, dripping, while his writing-book drifted out to sea. In illustrating this story 21 per cent of the children at six attempted to draw the swallows. They appeared with rather regular yearly increments up to eleven years, when they were seen in 78 per cent of the pictures. In these pictures, plants or trees are drawn by 7 per cent of the children at six years, by 54 per cent at fourteen, although they are not mentioned in the poem. At the age of six, only 9 per cent of the children's drawings of houses represented more than one side of the house. At fourteen, 54 per cent did so. In the "Johnny-Look-in-the-air" stories 27 per cent of the children at six drew a house, at the age of twelve 80 per cent, while at fourteen the houses declined to 56 per cent, houses not being mentioned in the poem. Later this method was superseded by a series of pictures illustrating different phases or stages. This transition occurs chiefly between seven and eleven. At seven years old, out of a total of 4,943 drawings, 78 per cent of the boys and 75 per cent of the girls drew fragmentarily, while at eleven only 11 per cent of the boys and 13 per cent of the girls drew in this way, the rest having adopted the method of series of pictures. Other tales gave a similar result. Interesting, too, is the fact that at the age of four the hat is represented as transparent in 24 per cent of all the cases, and at nine in

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that all the parents in his circle of friends were interested, and in 1846 he was induced to publish it. It is now well toward its 200th edition and has been translated into nearly a dozen languages. Many children thought dull have memorized it all by heart. The teachers of drawing and conservative pedagogues declared that its bright colors and rough drawing and cheap rhythm would destroy all æsthetic feeling in the child. One of the strangest things the author, who is now an old man, notes is that adults have expressed such intense interest in it.

What is this unprecedented book and whence comes its charm for children? The first picture is of a boy whose hair stands out twice the thickness of his face, and whose nails are grown longer than his hands, because he was naughty and would not have them cut. Another wicked boy is pulling off a fly's wing and has killed a pet rooster, cat, and canary, and is whipping his nurse. He finally lashed a dog which bit his leg. The mark in the leg is very conspicuous, and a critic who ridiculed this particular feature is said to have added ten thousand copies to the sale of the book. He at last has to go to bed. The doctor gives him bitter medicine and the dog that he had punished takes his place at the table. Another doggerel story, coarsely illustrated, is of a girl left alone who took matches which she had been forbidden to touch, lit one, set herself on fire, and was burned to a pile of ashes. The cats act like a chorus of frogs in a drama of Aristophanes, and finally shed a stream of tears larger than their legs and quench the ashes. In another tale a black boy is walking with an umbrella. Three naughty children ridicule him. These the great Nicholas catches and souses in a large ink bottle so that they are blacker than the negro himself. The next story is of an old hunter who goes after hares, lies down to sleep under a tree where the rays of the sun rain on him. A hare takes his gun and glasses and just as he shoots, the hunter plunges into the well. The ball makes a hole in the house after it has broken the cup of coffee that the wife of

60 per cent, after which transparency steadily declines, while clothes are most transparent between six and nine, when they reach 23 per cent, declining thereafter to 0 at thirteen.

Levinstein, like his master, Professor Lamprecht, is a profound believer in the recapitulation theory, and held that these essential features in the development of drawing are found among the children of all races and are closely paralleled by the records of savages and cave dwellers. The development of pictorial art in Germany, according to Lamprecht, is best presented in the following five stages: symbolic, ornamental, typically conventional, individualistic, and subjectivistic, and even here we find some ontogenetic parallels. The pedagogic inferences drawn are obviously that children understand and best represent their own art, which is of a unique type, which the adult no more appreciates than children appreciate the adult type. The importance of drawing is that it aids us to see, teaches the hand, and develops the powers of observation. For color the child has little or no appreciation before two. The records of the large per cent of Berlin children, who had never seen a living hare, squirrel, snail, lark, crow, duck, frog, butterfly, etc., shows the maladaptation of our drawing courses. For young children drawing is a language. Girls tell things in pictures more voluminously than boys. Children draw with the understanding, after all, more than

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the hare extends to her husband from the window. Another boy sucked his thumbs persistently and one day, after the mother was gone, promising her not to do so again, he broke his word, when a tailor, in red and green, springs in with immense shears and cuts off both thumbs. Caspar is a fat, happy boy, but one day refuses to eat his soup and none can persuade him to do so. The second day he is shrunk to half his former diameter, the third to one quarter, the fourth to one eighth, and the fifth day he dies of starvation and was buried with the soup on his grave. Little Phil loved to push back his chair and rock at the table despite admonitions, until one day he fell and, seizing the tablecloth to save himself, pulled soup, wine, bread, butter, fork, everything upon himself, so that he lay completely covered and all lost their dinner. The last tragic tale is Hans Guck-in-die-Luft. He goes to school with his head in the air watching three swallows, does not see a dog by whom he is tripped up. Later he walks into the canal while watching the three birds. He is fished out—a sorry sight—while his red book floats away and the three fish who were in each picture raise their heads above the water and laugh. One story has been appended to the later editions. It is of a boy who would go out when it rained, and having an umbrella he is caught up, finally soars away far above the thundercloud and is still floating somewhere wherever the wind carries him.

Compare this with the monograph by Hans Boesch (Monographien zur deutschen Kulturgeschichte. Band 5. Moderne Ausgabe. 1900. 132 p.), with its 143 woodcuts from ancient German writers, describing the stages of childhood: birth, baptism, first year's education at home, play, festivals, school, etc. The most striking impression is the frank way in which birth itself and infancy are illustrated. Everywhere, in the bath, in the arms of the nurse, in the cradle, in the go-cart, the children are nude, often ostentatiously so, as if the chief charm was the attraction of the body.

with the eye. Among the lowest people there are good and bad drawers. Indeed, in Australia this talent seems more generally diffused than in Europe. In the cuts, many of which are illustrated, certain children show marked traits of genius very early, and pathetic is the case of many who are very slow in their school work who exhibit very marked ability in drawing, which is especially prone in boys to take some specific direction.

Kerschensteiner[1] for seven years studied the artistic development of children, taking a whole year to formulate plans and methods. For his final inquiry he selected 15,000 children of the 58,000 between six and fourteen under his care, and chose them just as they came, with no reference to talent. He also studied 2,300 children with special ability to draw and based his conclusions upon 300,000 separate drawings, of which over 1,000 are reproduced in the 143 tables of his book. He studied the development of single objects, of collections of them at every distance, investigated whether it was easier to draw from nature or from fancy, the taste for decorating surfaces, the process of development in those with special gifts. Thus, all had to draw their parents, another man and woman, a few animals, flowers, a church, chairs, snowball fight, etc. They must also draw from nature, one of their school fellows, with an umbrella, sitting, standing; and decorate certain surfaces, the rim of a plate, book cover, box, hen's egg. Special directions were given the teachers. His results are summarized as follows: 1. As to the faculty for graphic representation of an object, he found that the child does not draw what he sees but what he knows, at first with little reference to its proportion or harmony, and that 94 per cent of all the children draw thus till the seventh year. This he calls the plane stage. 2. A feeling for form and line grows and impossible shapes appear, correct positions are observed and proportion and rhythm of movement slowly come in as a result of observation. 3. Later comes the silhouette stage, with no perspective and such aspects of the object are selected that two dimensions express it. 4. In the last perspective stage there comes some deliberate use of technique or distribution of light and shade, with foreshortening and perhaps overlapping, so that three dimensions are indicated. Few reach this stage of their own initiative and those who do so before ten are rare. 5. The conscious stage of perspective, which begins in rare cases at seven in boys and at nine in girls, develops slowly. Even at ten in boys and thirteen in girls barely half understand it. 6. As for graphic representations in space, this power is not parallel to that of single objects. 7. There is first either utter want of all notions of space or linear arrangement of objects portrayed. Those who begin this latter early find it hard to change and for them there is little development possible save in increasing accuracy of outline. 8. There is a stage where efforts to represent space fail of more than indicating it, as in map-like pictures with objects dotted here and there on the map, aborted bird's-eye views, representations of objects from two or more points of view, space representations by contour lines, etc. 9. The third stage appears in boys at nine and girls at twelve, who begin to be successful but with imperfect representations of space. Overlapping figures are few and perspective gives areas, but there is no real or imaginary horizon. 10. Fourth and last comes perfect representation. Only 2 to 4 per cent of the boys attain this before fifteen and girls hardly ever do. Those who attain it do so by the aid of copies. 11. As to decorative ornament, this faculty appears early and is quite distinct from the two former faculties. Some gifted here show no talent for the others. 12. This power appears not only in rhythmic arrangements of distinct patterns but of intersections of connected lines. 13. An uninfluenced child has little feeling for square surface decoration, and three fifths of the children treat such surfaces according to their ability, freely, or cover them with large or small favorite patterns. 14. Surfaces whose length is much greater than their breadth are tempting to either rhythmic pattern, garlands, or curves, but rhythm declines with older children. 15. These rhythmic attempts increase up to ten or eleven and slowly yield to rhythmically arranged garlands and arabesques. 16. From eight years on, over half the children seek rhythmic expressions in decorative surfaces. At fourteen this proportion is 70 per cent.

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[1] Die Entwickelung der zeichnerischen Begabung. Münich, Gerber, 1905. 508 p.

17. As to variations in aptitude, the natural faculty for rhythmic decoration of surfaces is earlier and more developed in girls than in boys, probably because the girl is more influenced by rhythmical ornamentations of her dress. 18. The power of graphic presentations of a whole in space is by far the best in boys. This is not due to greater capacity of observing details but to better power of grasping general appearance, which is characteristic of boys. 19. Great capacity for graphic representation early can only be followed when it is highly imaginative. Memory gives little promise of artistic development. 20. Children of seven or eight sometimes have not only the faculty but the technique for artistic space presentations. 21. Graphic skill generally goes with intellectual attainments but not the converse. 22. Up to eight, variations of aptitude of the same sex are slight but after this they are marked.

23. As to the influences affecting the development of the drawing faculty, it depends not only on interest in the object drawn or upon the proper direction of observation, but also upon the copying of drawings of the object made by others. 24. The order is not from nature to drawing from memory but the reverse. Up to ten years, the child draws better from imagination or memory than from the object. 25. The power of graphic expression is closely connected with the conception of the whole object and this has important pedagogic applications. 26. Brush work helps much in

surface technique and is better than pencil, pen and ink, quite apart from color effects. 27. Owing to the great influence of imitation, the child's capacity will always be a function of the contemporary artistic conditions of his country. A German and Japanese child who exchanged countries would each follow his environment. 28. It is very hard to influence children of ability under ten or twelve. They draw solely from their imagination and are averse to nature. If this tendency cannot be overcome their development will be slight.

As to town and country children, the latter are far behind here, probably due to the fact of fewer opportunities of seeing and copying. In decorating surfaces country children tend to plain, geometric patterns, lines, dots, circles, curves, while town children lean toward garland patterns. This, too, perhaps, because the country child is less influenced than the town child.

These conclusions led Kerschensteiner to insist that in primary schools boys and girls must have a different syllabus, that young children are ripe for decoration, but it should be omitted if the teachers have no taste or ability for it, brush work being always preferred, with geometric style rather than conventionalized nature forms. Drawing from nature can rarely succeed before ten. When it is systematically taught it should be based upon memory, following class discussion. Drawing from good copies should be limited to home only.

Kik[1] found that with children very talented in drawing, arithmetic was usually their weakest branch and in no case their strongest. Girls are more frequently strong in all directions and also more likely to be feeble in all than boys, the latter having the more numerous individual combinations of qualities. Girls have better memories and usually rank better. Girls who draw well are much more likely to have other good traits, and if they draw poorly are likely to stand low in other matters.

Ivanoff[2] sought to find whether there was a definite relation between ability to draw and general intelligence. His data were comprehensive and collected with the greatest care and with the coöperation of the teachers who answered many questions. Among his best results are that there are more boys among the good and more girls among the bad drawers. Yet if a girl draws well, she is more likely to be a good scholar, or if the latter, to draw well than is the case with boys. Boys who draw well are likely to write well, even more so than girls. Good drawers do well in geography which involves much visual memory, and in this subject boys excel girls. Excellence in drawing and history strongly tend to go together, but there is far less correlation with arithmetic, though more common among girls. Drawing is more strongly correlated with manual work than with language study. Good drawers were industrious and usually neat and tidy. Visual children work with great liveliness and zest, but only the reflective do so with deliberation and perhaps sometimes with periods of closing the eyes and working very slowly. The causes of defect in drawing are very numerous. Besides sense troubles, the mental content may be weak, the optic image incapable of guiding the hand, the attention, or motor innervation of eye or hand, or too great prominence of any one factor, may make excellence impossible.

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[1] Die übernormale Zeichnenbegabung bei Kindern. Zeits. f. ang. Psy., 1908. Vol. 2, pp. 92–149.

[2] Recherches experimentales sur le dessin des écoliers de la suisse romande. Arch. de Psy., 1908. Vol. 8, pp. 97–156.

D. Katzeroff[1] studied 2,062 drawings of school children to find their lines of interest. Most of the objects they chose were from their immediate environment and there was a good deal of monotonousness in the way in which these were treated. Ninety-five per cent of all the persons drawn were adults and not children. There were rather marked sex differences in that more girls drew objects right about them. They chose flowers and landscapes.

Thus we see that among the most brilliant achievements of child study are the scores of special investigations concerning the development of the art instinct. Besides finding the usual remarkable conformity between the phyletic and ontogenetic, that is, between the art of the savage and the child, we have learned many definite things to do and to avoid and our methods of art education are now in process of rapid transformation to conform to psycho-genetic nature and needs. The ability to draw requires the coöperation of many factors, not a few of which can be seen at some stage of infancy and in more or less complete isolation from others and from these, as Barnes has shown, we can readily infer many nascent periods.[2]

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[1] Qu'est ce que les enfants dessinent? Archives de Psychologie, Jan., 1910. Vol. 9, pp. 125–133.

[2] Earl Barnes, Child Study in Relation to Elementary Art Education, *In* Art Education in the Public Schools of the U. S., ed. by J. P. Hanly, Am. Art Annual, N. Y., 1908, pp. 101–103. Ebenezer Cooke, Art Teaching and Child Nature. Jour. of Education, London, December, 1885, and January, 1886. Corrado Ricci, L'Arte dei Bambini. Bologna, 1887. Part of this study is translated in the Ped. Sem., Oct., 1895, pp. 302–307. Bernard Perez, L'Art et la Poesie chez l'Enfant. Paris, Alcan, 1888, 309 p. Edward R. Taylor, Elementary Art Teaching. London, Chapman & Hall, 1890. 166 p. Alfred Binet, Interpretation des Dessins. Revue Philosophique, Dec., 1890. Vol. 5, No. 12, pp. 591–93. Karl Pappenheim, Bemerkungen über Kinderzeichnungen. Zeits. f. Pädagogische Psychologie, March, 1899. Vol. 1, No. 2, pp. 57–73. Louise Maitland, What Children Draw to Please Themselves. Inland Educator, Sept., 1895. Herman T. Lukens, A Study of Children's Drawings in the Early Years. Ped. Sem., Oct., 1896, pp. 79–111. Karl Götze, Das Kind als Künstler, Hamburg, 1898. Frederic Burk, The Genetic versus The Logical Order in Drawing. Ped. Sem., Sept., 1902, pp. 296–320. Sophia S. Partridge, Children's Drawings, The Paidologist, London, Nov., 1904. Vol. 6, No. 3, pp. 130–80

The child's first efforts to draw in the "quiddle" stage consist of rubbing a pencil back and forth with little reference to the mark it makes or even whether or not there is a mark. This is largely imitative motor impulse. The movement is almost always right and left with the central part of the mark nearer the body than that made by the extensor movement. The child does not notice the product. This slowly passes into a modified form known as the scribble stage where the movement is not zigzag, but there is a progressive factor with the repetition. It is in this stage that the child begins to be interested in the product of his activity which is not solely for the sake of expression. Not before the end of the first year does the child take interest in pictures or understand them and not before perhaps a year and a half does he show the faintest dawn of interest in making any comparison between his work and the object it represents. Indeed, this latter stage supervenes very slowly and late. Some have placed its dawn as late as the twenty-seventh month. Many children in the early school grades, as abundant experiment has shown, when told to draw an object, do not draw it at all, but draw their ideas of it. Not only do they not follow, but do not look at copy, and thus the most flagrant outrage is done to perspective and the third dimension of space. This may mark, as Verworn thinks, an advanced stage of the dominion of ideation over sense impression, but here we do not find in children any definite phase of development corresponding to what he assumes in order to explain the very lifelike drawings of the primitive cave man. The first impulse to copy is called the catalogue era, in which the child draws different features of the object apart from each other—the cow is in one place, the horns in another; the body of a boy and his head or legs are drawn separately—before the mind has attained synthetic power enough to graft factors into a symmetrical whole. Observation is a high art and the idea of Locke, that everything in the soul comes through the senses, is rather hard to rhyme with the development of the power to draw in children.

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168. Siegfried Levinstein, Kinderzeichnungen bis zum 14. Lebensjahr. Leipzig, 1905. Georg Kerschensteiner, Die Entwickelung der zeichnerischen Begabung, Münich, Gerber, Sept. 28, 1905, 508 p. M. E. Findlay, Design in the Art Training of Young Children. Child Life, London, 1906–07. Jahrbuch f. d. Zeichnen- und Kunstunterricht, herausgaben von Georg Friese. Hannover, Helwing, 1909, S. 322.

Les Idéals d'Enfants, par M. J. Varendonck. Arch. de Psychologie, 1907–08. Vol. 7, pp. 365–382. Ueber die Entwickelung des Farbensinns bei Kindern, von Helene Goldbaum. Zeitsch. f. Kinderforschung, 1907–08. Vol. 13, pp. 26–28. Ueber spontane ästhetische Empfänglichkeit des Schulkindes, von Friedrich Schmidt. Zeitsch. f. Exper. Pädagogik, 1908–09. Vol. 7–8, pp. 119–131. On the Association of Drawing with other Capacities in School Children, by Ethel M. Elderton. Biometrika, July & Oct., 1909. Vol. 7, Parts 1 & 2, pp. 222–226. Ad. Wachtel. Worin sind die Unterschiede im Farbenbenennungsvermögen des Kindes begründet? Zeits. f. Kinderforschung, Dec., 1910. Bd. 16, S. 83–85.

Still later comes the sense of ensemble of different units into a harmonious, well-balanced composition. The young child is as far as possible from being critical. He simply wants primitive colors, crude striking forms, and most of the niceties of many art teachers are entirely lost upon children under eight, ten, or even older, while younger children are quite satisfied with crude daubs, like those in Hoffmann's *Hans Guck-in-der-Luft*. When the sense of outline arises, it, too, like everything else, comes in with emphasis, and in the diagrammatic stage contours are often drawn with a very firm, strong hand, although here again children differ very widely. Some never focus on few and distinct lines, but make very many fainter ones without power to synthetize. The æsthetic sense that appreciates good pictures comes very late in children and this is fortunate, for high standards and the development of critical faculties discourage creative ability. Hence, some believe that showing children great works of art too early benumbs and stultifies their own power and urge that they should be kept mostly to crude pictures designed especially to meet their needs. It is a sad fact that usually before, but almost certainly at the dawn of adolescence, when the power to appreciate beauty becomes definite, a strong interest in drawing is very often lost, and this is a precarious age for all. The teacher's rule therefor should be to follow these stages so far as they have been determined, not only in method but in subject matter. Ornamental forms might be stressed at the fragmentary stage when the child draws parts separately. We should remember, too, that human beings and they in action, perhaps in a state of high excitement, are what the child prefers to draw, and these in the programmes of our schools are generally placed last of all. Drawing ought to be a language. Indeed, it did in history precede the power to write. It should accompany and support every school topic, should be a habit, almost a diathesis. Wherever children have an appetency either toward drawing in general or toward a particular type or class of objects, it should be indulged almost without stint. Criticism should be very sparing because it so easily withers native zest. Free forms in motion should precede mathematical drawing. The genetic order places the cube, pyramid, sphere, etc., very late instead of first as they stand in the logical order.

I have looked over many thousands of free-hand drawings by children on topics largely of their own selection, not only those now reproduced so copiously in the literature on children's drawings, but thousands sent me from various schools and cities, all with growing appreciation on my part. I have often selected a few dozen or score of the best and stuck them on my study walls or bookcases for my eye to rest upon in revery, and nothing in the whole wide domain of child study, and indeed nothing in all the great art galleries of the world that I have seen, has so impressed me with the native spontaneity and creative originality of human nature as these. The naïve errors themselves, often uniquely mirth provoking, spring out of the very heart of hearts of childhood. Many effects that art deems impossible are not only boldly attempted, but accomplished. Nothing is too hard and you can almost always see what the child means. I pity the artist who could study such collections with true sympathetic insight (although, indeed, I fear their training often makes this impossible for them) and not derive courage and inspiration, and possibly even suggestion as to ways and means to attempt newer and better things. Only the work of younger children needs explanation or interpretation, and this, if genuinely got from the child, gives a new type of æsthetic enjoyment not yet recognized in the text-books and which I fear the art schools make even amateurs progressively incapable of appreciating. The free drawings of older children, no matter how complex the scenes, weddings, funerals, banquets, battles, fires, sports and games, etc., need no interpretation, but are charged in every item with meaning and reflect everything the child knows about his theme. In a group of spontaneously drawn snowball scenes in their season there may be a score or two of combatants and the sky dotted with flying missiles, perhaps with their curves and even speed indicated. Sometimes they collide with each other in the air. There is every kind of hit and miss, with narrow escapes. Outcries of the children are written and connected with their mouths by loops. There are snow forts, perhaps in the act of falling. The stone hidden in one snowball shows through. The big, soft snowballs thrown by girls here often show design. In a few cases they fall down from the effort of throwing. The water flies in a ring or spirals from a whirling sodden snowball. Twigs are detached and fall from trees. Houses, fences, clothes, umbrellas, tree trunks are spotted white where they have been hit. Here a ball breaks a window and much attention is given in drawing the cracks in the large pane, which ray out from a point hit. One snowball drops into a chimney, stops the fire, and in another case puts it out. A snow man gets a hard ball in his eye, on his nose, or loses his pipe or is pinged to the heart. One has a hole clear through his body, with the snowball that did it still going on. A girl hit in the neck screams as the fragments go down inside her dress. One picture has red gouts of blood dripping from the nose of the snow man. The dog, cat, horse, passers-by on foot and with teams are hit and wrecked in about everything. Perhaps there are drifts to flounder through or snowflakes are falling in straight or oblique lines, so thick and big as to spot everything. Occasionally snow crystals instead of flakes are attempted. Snow is a great exhilarator of body and mind and brings a kind of saturnalia of spirit license and abandon, and all of this may appear in the representation of the tyro artist who greatly enjoys setting it all forth.

The history of art teaches us how periods and schools often grow very narrow and conventional in their treatment of nature and its various aspects, e. g., trees, flowers, sky, landscapes, clouds, smoke, storm, water and the sea, animals, fire, etc. A few typical forms of treatment, more or less standardized, are sanctioned, and from these variations grow petty and trivial. Not so with children. In a collection of their work on any one of these themes the deviations are endless, the boldness of conception almost stunning, the fidelity now to one, now to another item of observation is striking. In trees, e. g., the bark of the yellow birch may make it a raggedy, half-human tatterdemalion. Again, in autumn wood scenes, falling leaves of every hue carpet the earth and overlay everything. Here birds alight and sing, perhaps in rows shown in a kind of profile, one behind another, Egyptian-wise in indefinite perspective. Squirrels and children climb branches which lean hard all together in the wind or sag with a burden of snow. Transitions from the trunk to branches are of every possible and impossible kind. Limbs occasionally scrape and are even lost in the clouds. Always some one or, at most, a few details are focused upon and magnified, betraying just what and how far the child has observed up to date. Beasts, too, of every kind the child ever saw in nature or in pictures are not enough, and zoölogical impossibilities are often attempted by children for not only what they know but what they fancy, and so on all through the themes. Looked at collectively, *the child* is prodigiously fecund, and as to the individual, if we only had a complete collection of all the drawings of a single child with proclivities for art but who had been unrepressed by criticism or derision, we should find its verv soul in each developmental stage represented. Most of this, however, too early insistence upon technique crushes, and teachers have so long put form above content that they little suspect the innate power and love of children for this kind of work. We persistently refuse to respect until we have lost the power to see what the child really means, and thus, by abridging this stage in which our effort should be chiefly devoted to expression, which should be evoked by every possible means until it has become habitual, we strangle budding genius or at the very best tame it down to slow-paced monotonous mediocrity by stressing method when matter should be supreme. Here, too, the child ought to lead, and the teacher should first and foremost appreciate and recognize every intention, however obscure, and devote him or herself chiefly to suggesting here and there how better to bring out what the child wishes. Above all, teaching should be to encourage and not to repress the tendency to exaggerate each new trait, and should have regard not to the finished product and pay little attention to symmetry or to an artistic whole. Uniformity, too, should be cast to the winds and the teacher should encourage the deep instinctive tendency of pupils to perfect each item as it looms into the center of interest, to maximize, e. g., the effect of buttons when this is central, and the same with eyes, sleeves, coiffures, sleds, skating, snow effects, etc., always making the very most and best of each native interest as it arises and doing so promptly, before it is superseded by another, always, too, making expression paramount and deferring perfection and striving at every stage to help the child make what will give it, and not what will give the adult, satisfaction when it is done. The supreme end, at every stage, should thus be to produce what the child will take most pleasure in contemplating when it is finished. This is the first efficient spur to progress. Only when this is made supreme will free-hand drawing be placed on its true pedagogic basis. Thus, each child from the start should have its own portfolio, owned and kept by himself, additions to which should be one of his motives for work. The collection should be not only personal but private, shown to others only by and with the consent of each pupil. Incidentally, too, perhaps all such collections would be of special value for child autobiographies, for these would have a far higher value than the same number of specimens miscellaneously gathered from the grades.[1]

Color.—H. K. Wolfe[2] calls attention to the well-known views of Gladstone and Geiger that the earliest literature of several nations has few color words, and those designating red, orange, or yellow. Magnus has found similar results by examining contemporary savage languages. Of course, perception usually precedes names and may be far more advanced than the latter indicate. In applying names to things, however, color is sometimes almost as important a mark of distinction between objects as form. One trouble, no doubt, is in the imperfections of the memory image of color. Modern languages are very rich in these respects. French is said to have more than 600 color words. A German firm advertises 200 pigments. Thirteen seniors wrote an average of 26 color names, 90 different names appearing, with no preparation, in five minutes. Wolfe estimates that the average educated person has a color vocabulary of 25 terms. This he deems larger than the nomenclature of music which is more technical, yet both sounds and colors differ only in intensity, purity, and quality. Both have a continuous scale. As late as the eighty-fifth week Preyer could find no trace of ability to associate names with color, but on the seven hundred and sixty-third day red and green could be distinguished, each in the absence of the other. Yellow soon followed and was easily mastered. Up to the thirty-fourth month the colors correctly named by the child were in the following order: yellow, brown, red, violet, black, pink, orange, gray, green, blue. Probably this child was affected by home training. Holden's child, which in the twenty-fourth month used 483 words, had none referring to color. No doubt they perceive color but have not abstracted it from objects. So, too, we must distinguish between the ability to recognize colors and the habitual exercise of this ability. Wolfe's school tests were with oil pigments on cardboard, and he tabulates the result by giving the number of right and wrong answers for each color at each age. The relative accuracy with which children of different ages name colors is as follows: white, black, red, blue, yellow, green, pink, orange, violet. This does not differ very much from the age sequence. Girls make very little progress after the eleventh year.

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[1] W. H. Burnham. The Hygiene of Drawing. Sept., 1907, Vol. 14, No. 3, pp. 289–305.

[2] On the Color Vocabulary of Children. Univ. of Nebraska Studies, Vol. 1, July, 1890, pp. 205–34.

The greatest gain of the boys occurs before this age, although they are inferior to girls. With children of five, white, black, and red were in the majority of cases named correctly. The most constant progress during the first three years of school, from five to eight, is in connection with green and yellow. Thirty-four distinct names were given to orange. Young children can rarely name gray, brown, and lilac. All the children together used 73 distinct names, two including "ornish" and "orbid." Their originality was shown in such terms as light white, light dark, dark white. In all, the boys answered 62 per cent and the girls 67 per cent correctly. I may add that a woman student having laboratory training in color experiments wrote down, during the progress of a lecture on this subject, 100 English words denoting color, showing in contrast to the results obtained from children what may be accomplished by an adult.

From 4,500 records made at the Chicago World's Fair, Jastrow[1] found blue was decidedly the favorite color, and red next. Blue was man's first choice, "of every thirty masculine votes, ten were for blue and three for red"; while red was woman's favorite, "of every thirty feminine votes, four were for blue and five for red." Both sexes preferred dark to bright colors. Men's choices were confined to few colors and they cared less for dainty shades. The favorite combinations were red with violet and red with blue, and those most avoided were orange with green, violet or light blue. Blue is far least often selected under the age of eighteen, but is very much preferred from forty on. Violet is avoided somewhat as age increases. Light red is the particular choice of young girls, and from twenty-five to thirty is the age of "no choice or preference."

Stumpf's child[2] about the beginning of the fourth year used *weich* and *ä* in naming colors. Given a pencil, red at one end and blue at the other, he cried "*Weich m ä*" = light and dark. *Weich* = all bright colors and *ä* dark ones. Red beside black was called *weich*, but beside brighter colors it was called *ä*. A fire wagon with a red and white lantern, and later another with a white and green lantern, were both called *ä m weich*. In the first case *ä* was red, in the last green. Every color compared with white was *ä*, and compared with black was *weich*. The darker was always *ä*, the brighter *weich*. This looked like color-blindness, which could hardly be tested for a child at his stage of development, but he proved to have an excellent color sense. Of course, he may have been color-blind at this stage and acquired the power to distinguish them later.

The theory of Gladstone, in 1858, was that Homer's color terms really expressed light and dark, and Magnus concluded that in the

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[1] The Popular Æsthetics of Color. Popular Science Monthly, 1897, Vol. 50, pp. 361–368.

[2] Eigenartige sprachliche Entwickelung eines Kindes. Zeits. f. Päd., Psych. & Pathol., Dec., 1901. Jahrg. 3, Heft 6, pp. 419–447.

Old Testament, the Vedas and Zend-Avesta, color terms were used loosely. Goethe held that next to light, yellow appeared, and next to darkness, blue, and that these equally mixed formed red. These three writers are responsible for the view that archaic man did not perceive color, but only degrees of light, that he later acquired the power to perceive red, orange, and yellow, or the brighter colors, and much later learned to know green, blue, and violet, which were darker. Homer imperfectly distinguished red and orange, but a child of three was quite as advanced. Baldwin, beginning with the ninth month, placed colored blotting paper at different distances and noticed the frequency of reaction, finding the order of attractiveness to be blue, white, red, green, yellow not having been used. Holden and Bosse,[1] to clear up this conclusion, tested 200 children with the following very careful method: Square pieces of paper of different colors were placed upon a background of gray, in each case of a shade which would give the same luminosity, so that, for instance, if the child were red blind, he would not see the square of red paper. This precaution, which could be taken with much accuracy by the Rembrandt mount, used by photographers, was carefully observed throughout. The infants were first practiced in picking up papers as a kind of game, and the experiment ceased with the first sign of fatigue. The results gave no definite conclusion before the age of six months save in a few precocious children, but with the average child of seven or eight months a prompt reaction was obtained to red, orange, and yellow. At nine months this reaction was more prompt, and sluggish and infrequent to green, blue, and violet, but at ten or twelve months there was often equally prompt reaction to all these colors. This means that they were all perceived as differing from gray. Of course, negative results may have meant merely that certain colors were not attractive, but it would seem that colors at the red end of the spectrum of long wave length were acquired somewhat earlier than those at the violet end with shorter wave length. In another test for older children, ribbons of the six spectral colors were laid out, and the order in which they were picked up by infants from seven to twenty-four months of age was recorded. This was red, orange, yellow, green, blue, and violet, but less infants responded over sixteen months than under this age, and there was still more diminution up to two and three years. With children three and four years of age, there was an increased gain of those exercising positive choice, but the preference seemed to incline toward blue. From the age of four to eight, the number interested in the blue end of the spectrum increased, and the number interested in the red end declined, the blue being almost universally chosen at the age of eight. This preference persisted to the age of thirteen. The per cent of positive responses amounted to 81 between the age of seven and fifteen months. It then drops rapidly to a minimum of 12 per cent at the age of two and three years, then slowly rises to a maximum of 93 per cent at thirteen years of age. Thus the very striking result is reached that the red preference is nearly universal up to nearly two years of age, and then declines and nearly vanishes at the end of the fourth year. The blue preference begins with 33 per cent in the third year of life and increases in the marked way above described. It would appear, therefore, that the first selection, which is instinctive or almost physiological, supports in general the Gladstonian theory of the development of color perception in the race, although we must probably go lower down than man or even than mammals to find the beginning of color perception. Why the child reacts so differently at the different ages is not clear. The colors of animal life have nothing to do with it because they are subject to innumerable changes, but the background colors of nature are blue and green. The yellows and reds, on the other hand, complimentary to these, are found in small masses, and serve to call attention to particular objects. In large masses, red is exciting, while the greens and blues are tranquilizing. Thus, the young infant first responds to the exciting colors; then, after a period of indifference to all colors, seems to be averse to red and yellow. Some infants are cross if dressed in gray, but happy in bright red. Children from two to four are less affected by color. It has been noticed that younger children prefer red, and older children blue toys. Blue and violet appear to be distinguished late.

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[1] W. A. Holden & K. K. Bosse. The Order of Development of Color Perception and of Color Preference in the Child. Archive of Ophthalmol., 1900, Vol. 29, pp. 261–278.

R. E. Marsden followed Baldwin's method with a very young child,[1] beginning with his son at the age of about four months. He held cards of two distinct colors in front of him side by side and when his eyes were fixed they were moved apart and the one his gaze followed noted. Again, two balls of different colors were offered him and the one he reached toward or touched was noted. Again, cards were placed at varying distances from his eyes in order to see at what distance he was most likely to reach toward them. The eye method began when the child was four months old, which is earlier by some five months than any other experiment of the kind. A few tests were made each day and all were ended before the close of the first year. From the results it would appear that the colors that impressed the mind were, in order, yellow, red or blue, white or green, black, with brown last. In the refusals or attempts to reach at the various distances, the interesting result was found that culminating with the three hundredth experiment the child was chiefly right-handed; culminating with the six hundredth the left hand was very often used and nearly equaled the right. It then declined and almost ceased at the eight hundredth and later there were tendencies toward approximation. The early efforts were to grasp with both hands. The left hand was used most frequently at the distance of twelve or thirteen inches from the face. The scale used extended from nine to fifteen.

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[1] A Study of the Early Color Sense. Psychological Review, 1903, Vol. 10, pp. 37–47.

Schuyten [1] found a clever painter who reproduced with great accuracy six colors copied from the spectrum itself upon rectangles 6 x 4.2 cm., mounted on cardboard. These Schuyten laid before 4,242 school children, from four to fifteen years of age, about an equal number of each sex, adding to the above six, white and black. No color names or words were used, but the children were simply told, after inspection, to point with the finger to the color they liked the best. Each pupil was tested individually and with all kinds of precautions. The results differed somewhat for the young and the older boys. Summing up those from four to nine the preference was in the following order by percentages: red, 26.2; violet, 20.7; blue, 16.1; yellow, 14.2; orange, 7.6; green, 5.7; black, 4.8; white, 4.1. For the young girls, the first four preferences were the same; then followed green, orange, black, and white. For older children, from ten to fifteen, the order was as follows: boys—blue, red, violet, yellow, green, black, orange, white; girls—blue, red, violet, green, yellow, black, white, orange. Blue, red, and violet, therefore, lead for all ages and sexes, while black, white, and orange are least preferred; yellow and green lie between them. Thus, from physiological standpoint we can say that the retina of school children of this age is most agreeably affected by those chromatic rays that have chemical and calorific effects.

On the origin and development of the color sense comparatively little work has been done. Preyer thought it almost impossible to determine. In the eighty-fifth week his child apparently did not know the words red or green, although he thought the colors might be well distinguished by the eye, but not yet associated with their names. The next week he began systematic instruction and in the one-hundred-and-eighth week the child knew these two colors by name, and in the one-hundred-and-twelfth week it knew yellow and blue, preferring the former. Then he changed the method, and instead of naming the color himself, asked the child to do so, and still found that yellow led, with blue next. In the one-hundred-and-fourteenth week he placed colored plaques for the child to select and name. Here red and yellow were preferred. In general, yellow was named right nearly a year before the other chief colors were established. At the beginning of the fourth year he could name all the colors except very dark or very light. Generalizing from this one case, Preyer thought that children with good eyes at three could name color with certainty.

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[1] Quels sont les rayons du spectre dont l'éxitation sur la retine des enfants est la plus intense? Belgique Medicale, Vol. 2, No. 38, 1895.

Binet used the call and recognition method on a girl of two to three years. By the latter method, having shown a color and mixed it with others, it must be selected again. He found that not yellow, as Preyer had said, but red was the preferred color. This method strains both attention and memory. Darwin's nine months' child was allowed to reach for colors and seemed to prefer blue. Yellow did not enter at all. Of course, no general inferences can be made from a single child, and the studies of Preyer and Binet were essentially those of the effects of education.

Garbini tested development of the chromatic sense of boys and girls to seven years of age. In the first days of life light was unpleasant, but in the first month the sense for it began to develop and it was enjoyed. In the fifth week the child perceived objects. The development of the chromatic sense proper begins in the sixteenth month with red. From the twentieth to the twenty-fourth month the child distinguishes red better and has vague impressions of green. In the third year, yellow appears. In the fourth year, red is well and truly known, green and yellow less, and the child begins to distinguish orange, blue, and violet. In the fifth year, red, green, and yellow are well known and with some difficulty orange and blue are discriminated, but violet is generally confused with blue. At this age shades of the different colors are distinguished. At six, the child is not very clear on orange, blue, or violet. Spectral shades are perceived if they do not lie too near each other in the spectral series. When the child commands language, instead of the method of matching worsteds, the colors must be named. Garbini thinks that the ability to do this follows about a year later than the ability to perceive each color, but in about the same order. In the sixth year, only 2 per cent he found could name no color and 35 per cent could name all six.

We have also the work of Lobsien[1] and Ziehen. The former tested girls from eight to fourteen with seven or eight more colors by the naming method. He found them interesting in a very different degree. Red led for all ages, but blue was almost as well named. Then followed yellow, green, and lowest were orange, violet, and indigo.

Miss Shinn[2] in her recent book has given the most complete résumé of the work thus far done on color vision of children up to three years. With her own observations and experiments, she has collated both the published material on this subject and has also had access to some unpublished manuscripts on the development of color vision in young children. Taking up the study genetically

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[1] Ueber Farbenkenntnis bei Schulkindern. Zeitsch. f. Psychol. u. Physiol. d. Sinnesorgane, 1904, Vol. 34, pp. 29–47.

[2] Milicent Washburn Shinn. The Development of the Senses in the First Three Years of Childhood. Univ. of Cal. Publications. Berkeley, Cal., University Press, 1908, 258 p. (For Color vision see pp. 148–172).

Miss Shinn divides the problem into three parts: (1) How long does the new-born condition of color-blindness last? (2) By what steps does the child emerge from it? (3) To what advancement in color perception does he arrive in the time under consideration (the first three years)? Her conclusions may be briefly summarized as follows: (1) Children are insensitive to color at birth and may so continue for several months, though the evidence here is negative. (2) Weak color sensations, beginning at the red end of the spectrum and developing progressively toward the violet, are felt within the second half year and perhaps earlier. All the long wave color sensations are felt by the end of the first year and these are probably soon followed by the short wave colors, but there is no positive proof that these are perceived before the eighteenth month.

(3) By the third year and possibly in the latter half of the second the child has all the color perceptions of the adult and can be taught to discriminate and name them and to notice color in his environment.

(4) Colors are seen more feebly by infants than adults, but this difference has nearly disappeared by the third year. This is probably due to the restricted color sensitive tract of the retina.

(5) Pleasure in light antedates pleasure in color. Then comes pleasure in color dependent on their brightness and "warmth." By the third year, the cold colors may give as much pleasure or even be preferred. But children, up to three years, at least, have no feeling for color harmony.

Engelsperger and Ziegler[1] urged that the age of six, when the child passes from the home to the school, is of immense importance, and that we greatly need more knowledge of this period of life and that previous studies are partial and conflicting. First, the studies of this age by Bartholomäi, Hall, Hartmann, Lange, Lehmensick, and Seyfert are epitomized. The authors then report their own experiments on 200 children entering the schools of Munich, on whom they tested the color sense.

Their investigations were with pigment paper of the regular Zimmermann catalogue standard, 7 x 4 cm., by the matching method. Twenty colors and shades were used, all boys and girls recognizing white and black. Then in order of frequency followed: orange, 99 per cent; lilac purple and rose, 97 per cent; violet, 96 per cent; bright blue, 92 per cent; dark blue and blue green, 91 per cent; dark yellow, 88; green blue, 85; dark red and bright yellow, 76; dark gray, 75; light gray, 74; light yellow, 70; dark and light brown, 68; dark and light green, 67; light green, 65; light red, 64; scarlet red, 57. In this result it was surprising that gray and brown were often better known than dark and light green, bright or scarlet red. Although Holmgren, Cohn, and Schubert had found from ¼ to 1 per cent of children of this age color-blind, not one was so in this series. When the method of naming was applied the colors best named were in the following order: black, white, red, blue, green, yellow, brown, gray, rose, violet, orange. This result showed that from 12 to 30 per cent of the boys and from 9 to 28 per cent of the girls on entering school could not name correctly the four fundamental colors—red, blue, green, and yellow. Another experiment showed that about one third of both boys and girls could rightly distinguish and name the light and dark shades of the fundamental colors. When the child perceives the color but does not know the name, the child either compares it with some object, e. g., "like my dress," "like the sky," or some invent interesting qualifying words, like "quite" or "pure" green, or "a little," "a quarter," "great," "striking," "not quite" green, and the phrase "whitish black" sometimes occurred for gray. In compound colors children often select the dominant component. The child very much oftener finds the right color called for than it can name a color that is laid before it for that purpose. It is far easier for the child to call up in mind the concept of some object bearing the characteristic color than to recall the abstract name of the color. One should not be thought ignorant of a color because it cannot be named.

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[1] Beiträge zur Kenntnis der physischen u. psychischen Natur des sechsjährigen in die Schule eintretenden Kindes (Untersuchung des Farbensinnes). Zeitsch. f. Exper. Pädagogik, 1906, Bd. 2, S. 49–91.

In another series the color sense was tested on familiar objects instead of on pigments, because children learn colors from flowers, animals, clothes, etc. In a test based largely upon flowers, the surprising result was revealed that both the knowledge of and power to name colors was about the same by this as by the abstract method. Another test called for color preferences. This represents probably not a deliberate judgment of taste, but an immediate sensation. Here, too, the sexes differed but very little from each other. Lilac purple led with 20 per cent for boys; then followed dark blue, 17 per cent; violet, 15 per cent; bright yellow and orange, 8 each; light blue, yellow, green, dark red, and white, 5 each; scarlet, 4, etc. Aars[1] said that blue was the most agreeable. Children have very marked color aversions, according to these figures, twice as intense as their preferences. Here, for boys, black leads with 48 per cent; then follows in order of repulsion light gray, light brown, dark gray, dark red, rose, dark brown, white. It is striking how antisympathetic children, who have often a lust for color, are for black. Many adults probably do not advance in their color knowledge or appreciation beyond the stage of the child of six. Virchow complains that many of his students are optically helpless before the microscope, not because of color-blindness, but because their color sense has not been educated. The sense is probably very educable, as is seen in the fine discriminations made in some industries. The best education is probably drawing children's attention to colors of things as soon as and only in the same degree as they appreciate them.

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[1] Aesthetische Farbensinn bei Kindern. Zeitsch. f. Päd. Psychol., Juli, 1899, Vol. 1, Heft 4, pp. 173–179, contains a good bibliography. See W. H. Winch, Color Names of English School Children. Am. Jour. of Psychology, Jan., 1910, Vol. 21, No. 4, pp. 453–82.

Lobsien[1] has tried to apply the experiment method in the confused field of art education. He took 1,380 boys and girls from nine to fourteen who were asked twenty-one chief and ten subordinate questions to answer in writing, such as what picture, color, form, pleases you best; your favorite game, book, and poem; reproduction of three poems; how do you feel in shelter from a storm; the revenge of Uhland; Snyder's ox and the stalk, which is most beautiful; experiments with vacant rhythm forms beaten on the desk. The most important results were that the child is not indifferent to vacant rhythm forms and as early as the ninth or tenth year comes to feel poems that are recited, and this appreciation grows rapidly with years. Both hearing and memorizing good poems is a pleasure for most children. In writing their favorite poem the children showed the greatest influence of conventional instruction, although there was usually preference of the best, and almost never was an obligatory psalm selected. The pure lyric of mood was little valued, although more by girls than boys. Choice of books perhaps showed the best result and the influence of *Märchen* was observable in the highest grade, but then for the boys the Robinson Crusoe influence was making itself felt. In pictures, the color has a great influence, red leading and blue following. Curved geometrical figures were preferred to those of straight lines in the relation of nearly 2:1. In the estimation of both pictures and statues the result had about the same worth, but the answers to the question, why, brought out some valuable and intelligent judgments, partly regarding technique, the tone, the stippling, moral meaning, personal experiences, etc. All this suggests that æsthetic qualities slumber in children and ought to be brought forth.

A. W. Munsell[2] has used a device, originated by Professor Rood but much developed, to measure the range of perception of color, which certainly makes a strong appeal to the child just when its color sense is most educable. The strongest pigments he can manage should be allowed but not always the strongest colors within reach. Starting, then, with middle colors, rather than strong red, yellow, and blue, we have a new departure in color education by the aid of this sphere which presents balanced degrees of color, the student beginning at the middle and not at the extremes, but moving by measured steps toward an unbalanced maximum.

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[1] Kind und Kunst. Langensalza, Beyer, 1905, 100 p.

[2] Measured Training of the Color Sense. Education, February, 1909, Vol. 29, pp. 360–80.

All this systematic observation shows (*a*) how very widely children differ and (*b*) yet how little children even of school age know of color, (*c*) how strong and early this æsthetic feeling regarding what they know is, and (*d*) how meager their color vocabulary is. It also strongly suggests intermittance in the development of the color sense and the great need of special attention to the subject.

Primitive Art.—Dr. Theodor Koch-Grünberg[1] spent two years on the upper Rio Negro and Yapurá Rivers, studying the aborigines of Brazil, among whom he lived their own life. As Karl von den Steinen had done, he brought back a large collection of native drawings, of which he reproduces sixty-three tables with full descriptions and generalizations. The general fact that stands out most clearly is the very close resemblance between the pictures made by these adults and those made by children.[2] These Indians, who have never seen pencil or paper, have a talent for drawing and a boldness in attempting new themes, which would be all the more surprising were it not that we find the same thing in children. The drawings are here reproduced in the order in which they were made to show both the originality and progress of these "picture-hungry great children." The simpler drawings are in the rudest possible outline, and not a few of them have to be named in order to be known. There is the same mixed profile, where, for instance, both eyes are drawn, although the nose is in profile; the same instinct to draw everything that really exists, and therefore to represent what clothing hides, and the two opposite sides of nontransparent objects or the so-called Röntgen Ray representations are seen; the same tendency to leave out essential parts of the body, to attach them falsely or to represent parts of the body detached from it. Both children and savages also tend to improve upon the original drawings, perhaps by adding characteristic parts that were omitted in the first sketch, or by stippling in. Both prefer to draw larger animals, but can and do draw small ones, also plants and even scenery. They are not deterred by the greatest complexity and draw dances in mask and costume, hunts, and quite a number of representations are of ghosts. These Indians also have their own poetry of the heavens and several drawings represent their views of the constellations which are essentially different from our own. They excel, however, in drawing ornament, particularly of the kind with which they decorate their own rude pottery, girdles, etc. There is no more striking lesson from all these pictures than the immense contrast between the symmetrical and often beautiful ornamental designs, some of which have become conventional with them, and the drawings from nature which show every defect and crudeness that can be found in the representation of the youngest child.

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[1] Anfänge der Kunst im Urwald. Berlin, Wasmuth, 1905. 70 p.

[2] Cf. Levinstein's Kinderzeichnungen bis zum 14. Lebensjahr. Leipzig, Voigtländer, 1905, 119 p. Also Andree: Das Zeichnen bei den Naturvölkern. Mitteilungen der Anthrop. Ges. in Wien. Neue Folge, Bd. VII. Also Ethnographische Parallelen und Vergleiche. Stuttgart, Maier, 1878. 303 p.

M. Probst,[1] teacher in the L'Ecole d'Indigénes de Benikhalifa in Algiers, inspired by Levinstein's book, tested 53 Kabyle children in the preparatory class of the school. The children were asked to draw anything they pleased. Thirty-eight drew rural scenes, in which sometimes men and animals were represented; 10 drew animals exclusively; 3, people exclusively; 2, indigenous huts with their inmates, both human and animal. It should be mentioned that the Kabyles are Berbers and, while they have become nominally Moslems under the Arab rule, they have no inherited horror of drawing living figures. The drawings do not in general agree with the results obtained by Levinstein. In drawing the human figure only 2 children (four and five years respectively) out of the 53 omitted the body and attached the limbs to the head, nor did they represent all four limbs in a profile drawing, as did many of Levinstein's subjects. The conclusions which the author draws from an examination of the drawings of the Kabyle children, of which he has given many illustrations, are as follows:

1. That all children have some common tendencies in drawing, but that each race has different aptitudes and even special faults in drawing.

2. That Oriental children draw animals preferably to human beings or, as in the case of the Kabyles, either indifferently.

3. That Moslems and Orientals love to imagine fantastic and often monstrous figures.

4. That the Kabyle children tested showed better observation and memory for details than European children.

5. That these drawings do not show to any extent resemblances to the prehistoric drawings on stone or bone. They reflect rather mental habits that are only of recent heredity and adapted to the æsthetic needs of the race.

Kirchberger[2] shows that the very first step toward both art and script was taken by savages by painting the human body. Very important events in the life of the individual were often tattooed on his skin and so were sketches of articles in ordinary use. On totem posts, too, the carving often illustrates important events in the history of the family, especially things that indicate claims upon respect. The first step toward writing is always the copying of objects or pictograms, and this sooner or later becomes an ideogram. The latter marks the very limit to which the culture of the North American Indians attained. The next step is the development of the phonogram or sound sign, which is very different from a copy. This marks the utmost limit which script development attained among the Chinese. The Japanese took the further step of evolving syllabic script. Every step upward on this line comes when one people take over the descriptive modes of expression of another. All letters, therefore, are rudiments of original pictures; in the beginning was the picture.

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[1] M. Probst. Les Dessins Des Enfants Kabyles. Archives de Psychologie, Juillet-Aout, 1906. Tome 6, pp. 131–140.

[2] Anfänge der Kunst und der Schrift, von Th. Kirchberger. Esslingen, Neff, 1907, 49 p.

A recent writer[1] calls attention to the frequency of drawings of the lowest and most savage and most inartistic style that are essentially obscene, to which children are now exposed, and would have energetic measures taken to prevent and to remove them. He even holds that the liberty of art in this respect should be restricted in the interests of childhood. He deplores the cynicism that sometimes appears even in decorations.

Until it lately turned to *prehistoric studies,* the psychology of art was only the traditional æsthetics. We are now learning that works of art express much that their author does not suspect (just as criminals who deny knowledge of a place, if told to draw it from another's description, will unconsciously contribute true features from their own knowledge of it), so that they abound in items of the psychic life of those who create them which words cannot express. Evolution in entering the domain of art has thus far transcended the old ideas of beauty and this is principally due to the researches into the art of children and of prehistoric peoples. Why are the drawings of paleolithic reindeers, mammoths, wild horses, stags, etc., so vastly superior to the drawings of the bronze or iron age and why are the latter so stiff, stylistic, conventional, and often disproportional, with so many fantastic and fabulous figures compared with those in the Dordogne caverns? Why did this early remarkable art die out? Verworn[2] suggests that it was because the earliest men lived in their senses and had no disposition to do anything but copy objects and in their art became *physio-plastic.* Nothing was in the drawing that was not seen and practice consisted in observing more exactly more details and producing them. So it was very true to nature. With ascending culture, more processes were shunted in between the eye and the hand. When drawing was from memory, it was not directly things but concepts of them that were reproduced. As associations multiplied in the brain, they caused divergence from objective truth. Large areas of the cerebrum controlled the hand and thus art became *ideo-plastic.*

The child to-day does not repeat the history of the race in this respect, but its art is ideo-plastic from the start because its mind is fuller, and this interferes both with fidelity in observation and with the motor process of reproduction. The child draws not so much what it sees but all it knows of a house, man, dress, body, joints, putting the items of its knowledge together, part by part. It draws reflections and thoughts. Some parts of the picture are seen from above, some from the side and the combinations are poor and disproportionate. So, too, the art of most savages to-day is ideo-plastic and treats of deities, demons, and abounds in contradictions, fancies, theory, reflection, and speculation, crude though it be. The Bushmen are to-day almost the only tribe with purely primitive physio-plastic art. Most Negro tribes, on the other hand, think chiefly of spirits, souls, diseases, etc. Early man never thought of invisible causes. Naturalism was unperturbed by association or observation. The early man's skill enabled him to draw what his soul was full of.

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[1] L'Obscénité artistique et l'enfant pauvre. Revue de l'education familiale. Dec., 1905. Vol. 6, pp. 580–582.

[2] Zur Psychologie der primitiven Kunst. Jena, Fischer, 1908, 47 S.

Thus the change from the art of the Paleolithic to the Neolithic age was due to a strong development of the life of concepts with its mysteries which came from the Eastern Mediterranean. Theoretical life almost began with the idea of a soul that felt, thought, changed, and wandered when we slept and left the body for good at death. This was the dawn of dualism. Hundreds of consequences followed from this idea, such as the belief in ghosts, deities, magic, immortality and another world, and even religion itself, as well as the earliest philosophy. There were now new fears and hopes and this gave rise to countless mystic, bizarre superstitions and images, such as filled the souls of most savages. Primitive man did not look through and beyond things. He had no metaphysics, no idols, amulets, offerings, sacred places, rites, grave monuments, and probably no funeral burials. Even the germs of any of these things, if they existed, were at least undeveloped. So now people in whom such ideas and customs abound, like Negroes and Indians, have ideoplastic art, for immediate sense observation has slight influence, although even where reproduction is most exact certain concessions have to be made to the form of material or surface used and there are traces of ornamentation. When pictures of things are themselves copies, primitive art changes rapidly. Verworn had one child copy a paleolithic picture of a reindeer, another copy this copy, another this and so on till there were nine, and with each copy there was progressive departure from the original and a decline of fidelity. Forrer did the same with Greek coins and found that the original form was soon lost. Thus script letters were evolved out of original pictographs or ideographs and these latter were lost. So rapid was this change that we cannot now trace its stages. Now, most children draw from mental images, several removes from reality. With objects of fancy, stereotypy comes in and is extended also to natural objects. When hunting ceased and herding and agriculture came in, observation declined. Under the influence of the new all-dominating soul concept, every sense object acquired a more or less mystic character. The play spirit also arose which formed things for pleasure and which has now become the goal of art in the modern sense. Men reproduce what causes them pleasure in their memory or otherwise. It is later man, therefore, who has reproduced what he has thought and thus fabled monsters, etc., arose. Science tends to revive physio-plastic art, so now realism and symbolism both have their place, for "art mirrors the soul."

Haddon [1] has given us an admirable study of the life histories of design on the phyletic side. He traces ornament and decoration back to savagery and finds it always due to the imitation of the objects in nature or the products of every elemental human industry. There are sceuomorphs or forms due to structure, such as fastenings, or e. g., put in grooves to suggest wicker work or various weaves, braids, knots, plaits, twists. There are physiomorphs suggesting storms, clouds, lightning, and zoo- and phyto-morphs representing plant and animal forms, such as the lotus, acanthus, and all the symbolism in dragons, serpents, eagles, etc., which have spread over the world since the days of picture writing. There are anthropomorphs and finally heteromorphs which involve a mixture of one, two, or all of the above. Objects are decorated for memory, modification, history, biography, and for symbols or signs as in picto-, ideo-, and phono-grams. Thus wealth, magic totemism, and religion come in and the swastika and fylfot spread over the world and the whole psychology of symbolism opens as a most fascinating field to evolution.

The remains of primitive art are already numerous and are increasing. In 1895 Dr. Wilson found over four hundred specimens of engraved and sculptured art in Western Europe, four fifths of them animals and embracing about every known form. Although some are at rest, many are in motion, and hunting scenes are common, animals always being better drawn than men. While drawings seem to have been made line by line, one correcting another until the desired figure arises when its outline is deepened, the origin and meaning of these figures has long been under active discussion. Reinach [2] thinks both cave and bone pictures originated in magic, a view which Popoff and Déchelette support from present-day savages' use of pictures in sympathetic spellbinding devices to secure game. "The purpose sought was to possess one's self of the shadow or silhouette of the desired object." French anthropologists generally rather incline to the religious, totemic, or magical theory of the origin of art, while American scholars more often ascribe it to a genuine love of beauty. Hoernes[1] describes the psychology of the paleolithic hunter as being "the prototype of an inartistic Bohemian, an anarchist in politics and religion and with a phenomenal development of eyes and hands." With him, periods of extreme want alternated with abundance, those of exciting activity were followed by long leisure, so that his life had none of the monotony of that of the farmer or shepherd. Individual achievements stood out. He knew forests and night. The possibility of famine intensified the enjoyment of plenty. Thus the oldest art is that of the hunter, as the modern Australian, Eskimos, and Bushmen show. The latter once occupied the whole of South Africa and could not accept the whites as masters or adopt their civilization as Hottentots and Kaffirs could. Moszeik and Imschau think that the many paintings of the Bushmen were like those of the Cavemen of the Magdelien Era. They used only the cave walls, and not bark, bone, or skin, showing contour, only traced with colors in the following order, red, white, brown, yellow, black, blue, green. While the Bushmen painted nearly everything in nature, they were masterful only with animals, birds, the latter never flying, but lying on the ground. Animals were in every posture, but mostly in profile, and showing keen observation. Analogies here with children's drawings are marked, yet cannot be pushed too far, for the modern child knows but little of animals.

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[1] Alfred C. Haddon, Evolution in Art, as illustrated by the Life-Histories of Designs. London, W. Scott, 1895, 364 p.

[2] Salomon Reinach. The Story of Art throughout the Ages. Translated from the French by Florence Simmonds. New York, Scribner's, 1904.

The domain of savage art has never yet been adequately utilized or even tried out much for children. In a number of cases I find Indian pictures have been laid before them that have been deeply appreciated and their main features incorporated, often with avidity, in the children's work. Colored totem posts, dolls and idols, the anthromorphization of natural objects, clouds, winds, waves, fire, faces, animals, plants, are some of them more subtle and perhaps come later. Here imagination means freedom from the constraint of copying. Higher yet are the possibilities of symbols. Typology represents a very significant stage of both youthful and racial development and is a foreschool for meanings. Out of the nearly two hundred symbolic objects a pupil of mine has listed, series could easily be chosen that would be veritable ideograms or graphic metaphors to help the soul into the ideal world as well as to train the hand in reproducing them. These would invest drawing lessons with a little of the charm of mysticism and of religious depth and help open the new world of awe and beauty when it can do most to lift a tyro above the mere fixation of skill and give content its rightful predominance over form. We now know well what interest can do in inspiring children's work, and its wonderland is in this æsthetic domain. Judicious foreshowing and inspection for *Einfühlung*[1] or empathy can easily by a tactful teacher be used as invocations of the muse whom we have not only forgotten but discredited in school. We should never permit the drawing of a single figure or line without a strong desire to do so and a genuine interest in it. We must bring back the spirit of art that has deserted the schools. The master or mistress who cannot inspire has no place. To draw without loving is profanation. Practice alone is the letter that kills. The trouble, I know, rests in the training of teachers which makes at best mental artisans. Every art teacher should read a little of the great theories of art, should know something from an enthusiastic disciple of the uplifting thoughts of the great men in the history of philosophy, and later of Taine, Ruskin, the author of "Rembrandt als Erzieher," R. Fischer,[2] Bosanquet,[3] Grant Allen,[4] Godfernaux.[5] It is not enough to be able to patter about the great masters in art history and to show copies of photographs, important as this is, but each teacher for one thing should have a choice collection of pictures that appeal to his or her soul, if only a scrapbook of those that have given the magic touch. I have more than half a score of scrapbook collections, many hundreds in number, that have accumulated for years, largely from the illustrated press, which constitute my own private poor man's gallery, which in certain moods I take great pleasure in looking over, although I never had the slightest trace of ability to produce anything in this line. Some of the cuts in my own collections are by savages and a good many represent wild savage life. Not a few of those that have most impressed me are drawings by children that need some explanation. Most are by artists unknown to fame, but if they give me the faintest hedonic narcosis, in they go. Some which struck me as transcendentally beautiful leave others unmoved, although I feel that everybody everywhere must admire them. A few are copies of great works of art. One entire volume is devoted to the pictures of children, another to those of Jesus from the manger to the Ascension. History, myths, sculpture, landscape, portraits, animals, and still life are all there, and the striking thing about it all is that their charm never fades and nearly every one that ever awakened a glow still does so as I pause in my writing for an hour or two to look them over and wonder if even I could not, if I were able to express what they stir in me, teach art teachers something they ought to know, feel, and impart which they do not.

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[1] Moritz Hoernes. Urgeschichte d. bild. Kunst in Europa. Wien, A. Holzhausen, 1898, 709 p.

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[1] *Einfühlung* is a word coined by Th. Lipps to express the psychological phenomenon that we project into objects, qualities and determinations that, strictly speaking, belong only to the ego; e. g., we think and speak of a musical composition as lively or sad, when in reality this mood is our own experience, projected or felt into the music as if it were a quality inherent in it. Empathy is Prof. Titchener's translation for this word which has hitherto had no English equivalent.

[2] Erziehung und Naturgefühl. Berlin–Leipzig. Wigand, 1907, 92 p.

[3] History of Æsthetic. New York, Macmillan, 1892, 502 p.

[4] The Colour-sense; an essay in comparative psychology. Boston, Houghton, Osgood & Co., 1879, 282 p.

[5] Le sentiment et la pensee et leurs principaux aspects physiologiques. Paris, Baillière, 1894, 224 p.

Rosen[1] points out the following analogies between the spontaneous art of children and that of early painters with illustrations from the latter. Both begin with outlines and make little attempt to represent material corporeity, know little of shading, perspective, or space problems. Color, if used at all, serves only to cover surfaces and not to model. Both often feel no need of placing their figures on solid ground. Both begin with the highest problem, viz., the representation of the human form. If houses, towers, trees, mountains, or other elements of scenery appear, they are drawn entire. Both seek to narrate and to be clearly understood and try to solve the time problem in the same way. Neither asks beforehand whether he is adequate to the task proposed and there is at first no self-criticism. Both rarely look at an object to draw it, but depict memory images. Nevertheless, they are quite realistic.

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[1] Rosen, F. Darstellende Kunst im Kindesalter der Völker. In Zeitschrift für angewandte Psychologie und psychologische Sammelforschung. Band I, Heft 1 und 2. Leipzig, Barth, 1907, pp. 93–118.

C. Schubert[1] gives a valuable survey with literature of the recent work, especially in Germany, bearing upon genetic æsthetics, which he even calls the final goal of science. High art surprises, enraptures, and when we return to its masterpieces again and again we always seem to be seeing them for the first time. They strengthen and free us and make the very atmosphere in which we live glad. They imprint themselves upon the memory, are never entirely explainable, but grow with our psychic growth. Man produces them, although in doing so he is only a tool of nature that works and reveals herself in him. True art enjoyment is the apex of life and gives us the highest sense of its worth. They fulfill unconscious longings that are never otherwise entirely envisaged. They inwardize and give us strength and purity. To attain any of these ends, the teacher must himself have capacity for manifold æsthetic enjoyment and must go far beyond the mere wisdom of books. He must not be a mere intellectualizer or a moralizer. He must take the artistic view of every activity and department of life. Some of the definitions of art are pleasure without interest, intuition without desire, a feeling for subjective purposiveness without any objective end, suppression of the will, perhaps in a sense almost coincident with its absolute enfranchisement. It has been much discussed whether with the enjoyment of art goes a sense of its phenomenal or apparent character. However this be, it supplements life and experience and broadens our sympathetic, social, and religious interests, as well as those which are æsthetic. It is related to play. Music appeals to the ear, ornament to the eye, the dance to movement, theater to dramatic, painting to the picture instinct, the plastic is connected with doll play, architecture with building games, the epic with stories. Children sometimes specialize very young, as in the case of the well-known Munich boy of eleven, who became almost a Raphael in drawing horses. Collections of all such and other child drawings should be gathered at some central location for more critical study and classification. Writers on æsthetics have tried in various ways to describe the nature of the pleasure which art gives, and many have sought for one exhaustive phrase for this psychological process. They differ sometimes generically, but often slightly, from each other. Some reflect diverse theological and psychological theories. The most important are the following: conscious self-deception; a substitution that is seen through or understood; confusion that is the result of purpose or effort; a play of inner imitation; copying or co-creation; ideal participation in life; one's own inner experience; inner repetition or imitative construction; sympathy and wonder; positive participation; voluntary illusion; pure intensive living over again; the full feeling of life; unrestrained surrender to the content of the concept without any reference to reality; resonance and Einfühlung. Kant thought beauty a joint product of understanding and imagination. Herbart thought it arose in view of the mere concept or the what of a thing, with no reference to its reality. Siebeck thinks it is the feeling of immediate inter-penetration of spiritual and sensual; is a seeing personality into things. Volkelt is not inclined to refer æsthetic sensation to a central psychological fact. He thinks there is a perceptive basis and that the trans-subjective world has no æsthetic value, so that it is a purely psychological question. Art is not due to one need of man's nature, but there are four psychological roots: (1) an intuition surcharged with feeling when form and content blend; (2) the expansion and elevation of feeling concepts toward what is typically human; (3) the reduction of the feeling for reality with relative suppression of will, and therefore with more noetic freedom, although he admits that all that is æsthetic lives in the illusion of reality; (4) the increase of activity. The æsthetic object is felt as an organic unity. The physiological accompaniments have been developed and analyzed. We breathe deep in hearing an adagio. Volkelt, however, rejects Lange's physiology of art. Groos insists on motor adjustments, and finds these and visual and acoustic types. One poem gives a slight sense of hovering, another of sinking, another of moving up and down, another of gentle turning toward, with gestures of blessing or praying.

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[1] Einige Aufgaben der Kinderforschung auf dem Gebiete der künstlerischen Erziehung. Lagensalza, Beyer, 1905, 27 p.

Pedagogy has a most important work to do in all this. Schubert pleads for more experience among boys with nudity, and would extend this to girls. He also desires more stories, careful observation of the gestures and mien, respiration and other physical reactions of children to beauty in all its forms, greater familiarity with the nude child in all its activities, and a statistical answer to the question when the child ceases to give itself up to real and artistic illusion, when it arises and when it is destroyed, what colors are preferred. Favorite plays, dances, games and so on should be studied. The same problems we want to solve concerning primitive man. Landscape painting came late in the development of both child and race, and enjoyment of nature seems to require culture.

That the spontaneous drawings of the insane may afford very valuable data for diagnosis is shown in an interesting illustrated article by Fritz Mohr.[1] Copying often shows the components of earlier catatonic and other symptoms and there are characteristic differences between the drawings of idiots, maniacs, dements, etc., although the possibilities of this method are by no means as yet exhausted. Hallucination, depressive moods, individual experiences—all may appear. Some of the problems here are: what is the significance of the perhaps often-repeated forms and colors? what do drawings reveal as to complexes? is perception disturbed or are the peculiarities of the drawings only due to the imagination? There are thus sharp beards, large bellies, fat legs, big eyes in specific cases, which were found to afford deeper insight into the nature of psychic disturbances. Is the sense of beauty perverted or is it independent of the insanity? Grotesque exaggeration, ugliness, loss of the sense of proportion, is often seen. Do the drawings of children and idiots resemble each other? Is the judgment of angles, sizes affected or indicative of changes in sensation? Great artists, whose minds have been impaired, show it in their drawings, but we have no formulation of the laws of these changes. So the effects of drugs constitute another problem. Most of the work, however, in this field remains yet to be done.

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[1] Ueber Zeichnungen von Geisteskranken und ihre diagnostische Verwertbarkeit. Jour. f. Psychologie und Neurologie, 1906, Bd. VIII, Heft 3 und 4, pp. 99–140.

F. Regnault[1] says that since Duchenne, physiognomy has been able to decompose and reproduce the expressions of many complex sentiments and of even fugitive emotions. In general, primitive art produces calm and non-expressive or atonic faces. This was true in Greece, Byzantium, and Italy. This reserve may have been a reaction against the efforts for very intense expression in a more primitive stage of art. Children asked to depict a laughing and a crying face make everything extreme. Savage art expresses joy and grief often in masks, hideous or ludicrous, and these expressions often become highly conventionalized. The Hawaiian gods of war, to whom victims are sacrificed, have ferocious expressions, but Christianity has in some cases so toned these down that they are no longer recognizable. These fantastic beings, sometimes with human wigs, accompany the people in their wars. They certainly show a great effort to express human sentiments.

Æsthetic theory merits here only the briefest notice. For Kant, the beautiful gives us a pleasure that is disinterested, without desire which the agreeable, and without motive which the good evokes. It pleases everyone and is universally valid, for all judgments of taste are individual. There is something in it that appeals to us as if it were designed to do so, but there must be no sense that the artist made it with the purpose of producing any specific effect in the spectator. It must please uniquely and is an example of a universal but unstateable rule. The sublime, on the other hand, is that than which there can be no greater, and thus it is subjective, although objects in nature, as the starry heavens, may evoke the feeling. The sublime may be extensive or dynamic. Its pleasure is toned with a painful feeling of our own inadequacy. Beside the sublime all else is small. Because we cannot comprehend, we feel a supersensible substratum in it. Despite our inadequacy, we are conscious of our superiority over nature. Judgments of taste are at the same time subjective and universally valid. The concepts they are founded on are indefinite. Whether a product of design or not, the highest aim of æsthetics is to be a symbol and fore-school of the good, and so, like religion, it is a correlary of morals.

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[1] La Physionomie dans l'Art Sauvage—La Natur, 1901, 29^e année, p. 408.

To Hegel, art marks the first apparition of the absolute reason in man. It is first symbolic, where nature predominates but the idea lurks behind. It is classic when form and content are harmoniously balanced; and third, it is romantic where thought preponderates and the material embodiment is only a sign of the higher meaning. Thus comes the processional, architecture, sculpture, painting, music, poetry, the content being more and more predominant. This leads on to the next step, which is religion, after the mind has completed its triumph over nature.

For Schopenhauer, the hedonic narcosis or joy hypnosis comes when the intellect, freed from its tyrant will, is so utterly absorbed in contemplating a beautiful object of art that it sees it solely and alone, isolated from all relations to all other things, and thus from it the spectator glimpses the universal, immortal, pure, Platonic idea it embodies. The subject must be lost in the object, be its pure mirror, and reach the eternal form or species which every true art object represents. In this way time and space are transcended. The supreme moment of genius is negation of the will, absolute objectivity. The veil of *Maya* (illusion) is rent. Because will must be left behind, works of true art must be useless, for use is to beauty as bricks to diamonds. Genius is revolt from service to the all-master will, and the ecstasy thus caused is the counterpart of perfect self-renunciation. It means the dissipation of the illusion which makes man think he is an individual because personal barriers break down or fade away. Only in such moments do we ascend above this worst possible of worlds and realize how blessed life would be if the fierce dominion of the will were thrown off for good and we became free intellects. After the palmy days of the old æsthetic philosophy and metaphysics, came in many partial art theories which emphasized its various factors. For some, art is the product of superfluous vitality in general, as Schiller and Spencer regard it, or it is the purest and highest form of play according to Groos. Some think it chiefly imitative, mimetic, a product of social infection helped out by rhythm, based on sympathetic rapport, since grouping always intensifies the feelings of each member of the group. Art certainly does copy its forms and they are very pervasive, but this can hardly explain the origin of these radicals. For others, art is self-exhibition. Its purpose is to relieve emotional tension. To the Parnassians who would stamp out exaggerated sentimentality, it is or should be absolutely devoid of all feeling, for its data and its *quæsita* are intellectual and passionless and every emotionalistic interpretation is wrong. For others since Darwin it is all or chiefly sex, long circuited up through phallic and erotic stages, and is always in danger of lapsing to obscenity. Guyau thought the insignia and excitement of war were one of its chief roots. Yrjö Hirn[1] emphasized magic. Others trace it to crafts and products of industry. Euhemerists make it decorative and transfigured history. Lehmann and Marshall think it is enlargement of the pleasure field. Some are content to define art as autotelic, something unique and for itself alone. All these and other views have had various versions and have been combined with each other and have varying degrees of plausibility, too, for the different arts. But none answers the pragmatic, i. e., pedagogic question why art products are made and why they are enjoyed.

The best answer to these questions, we believe, is because they intensify life. They express its quintessential forms and raise it to a higher potential. The individual at best, and certainly under existing conditions, is like an animal in a cage pining for the larger life of his race, the possibilities of which he is born with, as if in the form of dim Leibnitzian monads or Semon's mnemes from his long heritage, and he pines and is homesick for the open. He lusts to feel more intensely every emotion, even painful ones, *die Wonne des Leidens.* He wants to thrill, glow, and tingle with every essential sentiment his race has ever felt. Even if he drinks to intoxication, it has primarily been psychologically analyzed as a desire for more euphoria. If he dances, an inveterate instinct impels him to reach frenetic rapture through wild abandon. If primitive man goes to war, he works himself up to a frenzy of rage and his adornments are to terrify those he would destroy. If he loves, he uses many incitements to attain the erethic state by love antics, etc., and would also thus incite the female, coming sometimes in those amorous cadences even to the point of orgasm. Even the tamed modern man has within him a deep instinct at times to break away from all restraints and repressions, to get a second breath, to be inspired like the bacchantes and the maenades, to celebrate some kind of saturnalia, to come into a pitch of high emotional fury like a Dionysic corybante. His very soul craves excitement to the point of orgy, seizure, rapture. In this way he is impelled to a higher energy, to fuse the real with the ideal, sense with faith, the visible and the invisible, to escape from the shackles of personality and of civilization, and to break into the great life of the race. Now art, as I believe we must conceive it, is the regimentation of these inspirational and passional impulses, their frenetic arousement within bounds often all too carefully prescribed of social convention, taste, canons of criticisms, etc. It is the sublimation of the erethism which each emotion tends toward. It is psychic intoxication administered by systematic dosage in order to act as inoculation against wild and desperate frenzies. Criticism is in a sense its bear leader and trainer. The super-individual or passional life that lets itself go often makes havoc with all the prim proprieties, and so we fear or are at least in some awe of everyone whom we think capable of any degree of abandon, fascinating as it is in its half-pallid licensed forms. If it breaks out in the adolescent form of hoodlumism or in drunkenness, we penalize it. If it takes on the form of sentimentality, we ridicule it. If it is fanaticism, we censure; if a youthful afflatus sweeps a pupil or student into anything our narrow conventionalities disallow, critical castigation destroys genius in its bud. We rather suspect all passional states. Enthusiasm, even in the quest of knowledge, our academic youth stamp as bad form. Our children must not fight or be angry, must be shielded from panic, taught that jealousy, revenge, hate, pride, are wrong, never lose self-control until, if they are docile, they come almost before we know it to have nothing in them worth while to control. Now, how can art, the very life of which is feeling, flourish where emotion is kept at its lowest possible tone until it is in danger of permanent atrophy? The tamed primitive man in us thus reared has no self-knowledge. Without knowing it, our art teachers seem practically to have accepted the Parnassian theory that art must be absolutely without feeling, and so they are content with mere technique, when they should first and foremost seek to inspire. Here where there is no vision, the pupils perish. Art regulates passional states only because and in so far as it expresses them. Interest, of course, is needed in every domain of education, but here instruction without it is sacrilegious and indeed is akin to defloration. Thus art teaching needs radical regeneration in heart and soul. It could and should teach more of nature and man than all the other studies can, but in fact it teaches less than almost any other. This day of transition should mark the nascent hour of its rebirth. Pictures and other art work that represent every great and noble passion writ strong and large should be shown and impressed, and the captives in our schoolroom should be let out into the open fields of life. Art thus taught is perhaps the best of all initiations into adolescence, even for those who cannot ever hope to acquire any facility in any art. It involves more doing than knowing, but far more feeling than of either or both. It is the chief regulator of the heart out of which are the issues of life.

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[1] In his excellent The Origins of Art. Macmillan, N. Y., 1900, 327 p.

Of all schoolroom appliances and illustrative apparatus, nothing is so effective as pictures. Their ministry is manifold. The walls of every room and hall should be hung with them, and they should be chosen not by artists, but by those who know what appeals to the young, and older children should always have a voice in selections for their benefit. There ought to be city committees to select with the greatest deliberation those pictures that go to the heart and illuminate the mind. Their size and position should be such that all can see them near and face to face, for most are now too small and high. Explanations of them should be made after a careful preparation on the teacher's part, and they should be frequently exchanged, rotating from room to room and building to building. Vastly more time and attention should be given to seeing and talking of pictures, even at the expense, if need be, of the time devoted to drawing. For most pupils the former will be a far more important factor in their future lives. More answers should be compiled to the question, What picture has most deeply impressed you or most influenced your life? Picture books have an important function and should be copious and selected as a canon, and plenty of time given the pupils to see them for themselves, with no adult supervision. Small photographic reproductions, like those of the Perry picture type, should be circulated, topically grouped and taken home in bunches, as books are loaned. Every schoolroom at least should have its own scrapbook of pictures which the children like. The large colored wall pictures so common in German schools are almost unknown here. Series of them, very carefully prescribed by teachers and designed by artists, some of them most admirable, are used to illustrate literary masterpieces the children are reading, history, geography, arts, sciences, and are so used as to kindle interest and to economize the acquisition of knowledge. Chalk, charcoal, pencil and ink sketches of all the best the children do are exhibited not only in the school for the benefit of all members, but sometimes in the art museum for parents and the public. Besides all these, there should be not one but many series of large colored wall pictures for younger children of a kind artists misprize, but that children both appreciate and love—pictures that do not aim at harmony of colors or unity of composition, but to stimulate interest and to serve as mediators between objects in nature, occupations, and every sort of *realia* and the isolation of the schoolroom. Young children's votes are never for the old masters, whose cult below the teens is only an air plant without a single vital root that strikes into their souls. Most art teachers are culpable of gross self-indulgence without knowing it in their selection of themes and pictures. It is a fool's paradise to fancy that there is anything in Michael Angelo, Raphael, Rembrandt, or any of the classic works of art that make much appeal to juveniles, although adults so very easily see their own interest in them more or less faithfully reflected in that of the children. What zest is awakened, however, is only ephemeral, and the end is often positive distaste as a reaction from this art vaccination which serves as an immunity bath. Thus, the stage of æsthetic development in the child's mind should be far more carefully observed and followed, and far more importance should be attached to showing and explaining. Most children regard content, and above all moral content, and rightly so, as far more important than all matters of technique or execution.

Art museums in this country are awakening to a new sense of duty toward education and may be divided into three classes. The first is that mainly arranged for experts. The second makes more or less special effort to help artists, collectors, and amateurs, on the plan perhaps of the South Kensington Museum. The best of this class is the plan of the museum of Manchester, which strives not merely to satisfy the artistic sense, but to awaken it. The first Museum Conference, which marks the date of a third movement, was that of Mannheim in 1903. Its purpose was to bring museums into touch with the working classes. Here it came out that, in Bremen, visits to the art museum were obligatory for children, who later wrote essays on what they had seen. In Dresden special effort is made to serve the needs of children. Vienna has a circulating art department, with collections that travel from school to school. The vital touch with the people must always be largely through the children. The American Association of Museums, at its first meeting (New York, 1906), laid stress upon the obligations of museums to the public. M. S. Pritchett and others have given Boston a certain prominence in this respect. At the museum, lectures are given to bodies of students, so free as to facilitate conversation. Docents, or trained guides, are maintained to explain the treasures to visitors and also to speak in schools. There are also traveling exhibits to take the museum to the school, instead of bringing the school to it. The Utah Art Museum maintains a collection to loan to different parts of the state for annual exhibits and offers a hundred-dollar prize for the best painting by a Utah artist. A few other states have followed a similar plan. In 1906 a committee on the utilization of museums and art by schools and colleges was formed, with President Eliot at its head. Under its care, lecture courses are given to teachers outside and classes are held in the museum itself. Conferences for teachers and gallery talks, circulating lantern slides, a classroom in the museum equipped with lantern, blackboard, etc., the loaning of real objects of art and illustrated handbooks are among the methods which experience has found so far most useful. In some of the Boston high schools, small classes of girls, chosen by the drawing teacher, meet at the museum and are given special privileges. Sometimes art is used to help history, or pupils may be sent to visit with written instructions and explanations. Perhaps the best written aid for teachers is given in New York, the most effective coöperation with public schools in Toledo, the best arranged library is at the Art Institute of Chicago, the popular lectures system is extended to Sundays in Detroit, the circulation of photographs is carried out in Pittsburg; while at Richmond, Ind., the children's vote decided the purchase each year of a picture. In Philadelphia, teachers are invited to make use of almost every object and facility of the museum, which was the first to publish a quarterly bulletin, each number of which describes some department. Art primers, too, are published here and an illustrated catalogue at a nominal price. In Syracuse children are encouraged to visit the museum and given cards on which they can vote for their favorite picture, in order to stimulate comparative study. This vote is discussed in class. The Toledo Museum reaches the home of every one of the 21,000 children of the public schools. Every day in the school year some class is at the museum for the three o'clock talk. Children come prepared and the talks are more or less systematic. Every spring the museum holds an exhibition of the work done by school children, in which every child of the city has a personal interest, for every one of them will have something on exhibition. Every room of the building will be occupied, and not only drawing and design, but manual training, dressmaking and domestic science, house plants and so on will be shown. A hall in the Art Museum of Chicago, seating nearly 500, is in daily use for instruction. All of the teachers of the city—some 6,000—hold tickets admitting them at all times. Wednesdays, Saturdays, and Sundays are free, but groups of pupils with their teachers are admitted without fee at any time. The Ryerson Library, with 5,000 books, 20,000 photographs, and 5,000 lantern slides, lends them often to teachers. In the Detroit Museum of Art a special feature consists of Sunday talks on art and travel, which are illustrated and very popular. The gallery attendants serve as guides and are trained to that end. In the Brooklyn Institute of Art, besides other features, special attention is given to labeling everything worthy of note. The Cooper Union makes a special feature of encyclopedic scrapbooks. Two years ago, 50 were finished and material was at hand for 200 more. These are grouped by topics. The Metropolitan Museum of Art in New York may be made practical use of by teachers of art, history, and literature. Special written information is given out any time to teachers who ask for it and a classroom seating 250 is set apart for teachers and pupils where pictures and slides can be shown. This museum is especially rich in photographs illustrating the history of the various departments of art. It has photographs of its own most important collections, sold at nominal rates, all sent freely by the education department to all registered and approved schools. A new museum should first of all make an investigation, and not have another stock mausoleum of great works. It is not enough to open the museum without fee Sundays. There should be facilities for every school teacher to bring her class and talk and explain the pictures and other objects. There should be material lent to the grades and high school; moving pictures illustrating Homer, etc. (*cf.* Paris Pedagogical Museum); pictures to illustrate history, geography, art; Perry pictures; collections of child art; exhibitions of the school children's drawing, with prizes; every child should have something there, and this would draw the parents. We may well deplore the decline of New England art from the days of ornate front doors, andirons, fireplaces, style and character, ornamental door handles, knockers, fine old furniture. Now all is machine-made for cheapness, and if there are elegant dress patterns that are individual, they are all made abroad. We turn out vast numbers of uniform products; manufacturers control the public taste, and there is tawdriness. There should be collections of iron molding, which can be as fine as carving, e. g., the old Franklin stove compared with our own modern nickel-plated monstrosities, wood turning, and all that is original. Even flowers and gardens might be undertaken by a museum. The age to reach is the teens and a little later, when the young can be fascinated and their taste and morals preformed. Not only should they go to the museum, but it should go to them. Thus the museum of the past is being transformed from " a cemetery of bric-à-brac into a nursery of living thought." It is taking its place beside the library and the laboratory. The two motives in the art movement, that which deals with utilities and the shop and touches industry, on the one hand, and that which stresses beauty and would develop individuality, on the other hand, have both been active agents, and this should ever be the case, for art is in its very essence the harmony between the æsthetic instincts and their realization in tangible visible form. The child artist must appreciate beauty to either recreate or reproduce it. Art itself never reaches its acme until it has touched all phases and stages of human life, entered the humblest homes, the kitchen, the workshop, decorated tools and habitation, and thus become an integral part of the life of the people, while on the other hand every productive industry is crude and cheap unless it gratifies the love of beauty which some theorists now identify with ideal if not indeed with actual utility.[1]

In children the earliest phyletic stage of copying from life seems to be omitted. They always draw their own ideas at first, and not before the age of eight do they begin to observe and to follow copy, so that it is then they need special help. Guidance before can only incline them what to draw, but now comes the time for teaching them how. To draw well, children need good observation, clear memory, lively imagination, strong emotional nature or æsthetic sense and manual skill. These five qualities almost never exist together, and their combination determines the type of talent. Even one of them, if very highly developed, may make a one-sided and transient genius, but talent has no foundation unless it rests upon several of these factors. In recent years there have been many introspective studies of the æsthetic sense by adults in laboratories who have carefully watched the stages of the development of their own æsthetic feeling, regarding simple lines, more complicated figures, pictures of landscapes, plants, animals, and scenes from human life. They have studied effects of color, eye movements, noted their own reactions to humoresque scenes, compared memory and imagination, analyzed association, the effects of perseveration and all the other stages of empathy (*Einfühlung*) or feeling into objects of art. Interesting and important as this literature is, its chief lesson so far is to teach us the very wide range of individual differences, so that practically no suggestion of great pedagogic value has yet come from this field, and thus, interesting as it is, we must disregard it here, referring those interested in experimental æsthetics to the references given below.[1]

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[1] Some of our most progressive public libraries are doing far more for art education than the museums. The Forbes Library, e. g., at Northampton, loans from its vast collections portraits, geographical, architectural, photographic reproductions of paintings, sculpture, engravings, etchings, Japanese prints, plates of design and alphabets, costume, decoration and ornament, applied design, nature study and miscellaneous pictures to almost anyone who applies, near and far. Sets of pictures, stereoscopic views, etc., in systematic collections are loaned to every grade of the public school, to private individuals near and far with only the most liberal restrictions. The course of study is followed, step by step. Many libraries, too, receive classes and have special teachers on art appreciation.

The dozen or more good studies of childhood, however, to which references have been given elsewhere in this chapter, seem to me to teach art teachers a few very fundamental principles of the most vital and certain kind, as follows:

I. The method and matter here must be judged by their value and the meaning to the child alone. He draws for his own pleasure, and not for any satisfaction on the part of adults. He will develop ability in this line largely according to the degree in which this interest can be kept alive and increased. From this it follows that drawing differs greatly according to the child, its nature, environment, and inclination, and changes radically with age, so that we shall never get very far by any of the stock uniform and mass-teaching courses.

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[1] Oswald Külpe. Bericht über d. 11. Kongress f. Exp. Psy. Edited by Schumann, pp. 1–57. Paper reviewed by J. W. Baird in Psy. Bull. V., 1908, p. 303. C. Stumpf. Beiträge zur Musikwissenschaft. Barth, 1898–1901. Felix Krueger. Die Theorie der Konsonanz. Psy. Studien, 1906, Bd. 1, S. 305–87, Bd. 2, 1907, S. 205–55, and Bd. 4, S. 201–82. Newton A. Wells. A Description of the Affective Character of the Colors of the Spectrum. Psy. Bull., June, 1910, Vol. 7, No. 6, pp. 181–95. Lalo. L'Aesthetique Experimentale Contemporaine. Paris, Alcan, 1908. Meumann. Einführung in der Aesthetik der Gegenwart. Leipzig, Quelle & Meyer, 1908, 151 p. Alfred Binet. La Psychologie Artistique de Tade Styka. L'Ann. Psy. 15, 1909, pp. 316–56. Kate Gordon. Esthetics. N. Y., Holt & Co., 1909, 315 p. Ethel Puffer. Psychology of Beauty. Boston, Houghton, Mifflin & Co., 1905, 286 p. Lillien J. Martin. Psychology of Aesthetics. Am. Jour. of Psy., Jan., 1905, Vol. 13, pp. 55–118. Felix Clay. Origin of the Sense of Beauty. London, Smith, 1908, 302 p.

II. All observers agree that the very first drawing activity of the child is wigwagging of the pencil, producing many more or less curved lines in the scribble stage. This is essentially purposeless play and a kind of preparation for coördinating eye and hand. This should be encouraged with the utmost freedom and without interference, and even stimulated by suggestion or by provoking imitation. The child sees no meaning in these scrawls, and indeed cares nothing for them, but his interest is solely in the act. This stage must be developed to its utmost and has its use to limber and give range, which ought not to be inhibited by any preconceived image of an object to be drawn. It is a stage of preliminary exercise of the functions involved. When the child begins to see a meaning in his scribbles, it is an afterthought of interpretation which sometimes not only seems but probably is very wide of the mark. Still more time must elapse before any preconceived form is intentionally put down.

III. In the next stage some idea or mental image begins to direct, guide, control the drawing movements. The child tries to express something, and the products are a language of thought. The act of recognizing and naming the products of his activity are now genuine. The appreciation of pictures has begun. Thus, there must be no attempt, at least before eight, to have the child copy objects, for he does better in putting down his own ideas of them. The city children and those of the better class are superior at this stage. In seeing pictures, too, now content is all and execution may be ever so crude. Hence, beautifully executed pictures that adults praise will leave the child untouched. At this age, stories can be drawn. Several studies bring out, too, the great effect of the influence of other children in directing and stimulating interest in drawable scenes and activities. The picture is only a symbol of what goes on in his soul, and that is all he wants. Hints should be merely to fill the gaps. The goal should be to arouse interest in all sorts of things about the child and stimulate observation.

IV. After entering school, suggestions for drawings should be constantly given the child from history, nature, geography, and reading, with all of which it should be correlated. In at least two, and perhaps three, of the lowest grades, drawing should still be essentially free, from memory rather than from direct observation. It is the pre-artistic play stage, and play prepares for everything. The imagination now should be cultivated. Things may even be drawn from descriptions, and mental imagery should be made as vivid as possible. Color can be made the most of, but designing proper should come later, for the child is still in the concept stage.

V. Not before eight or nine does the child normally attempt to copy objects in nature or to make his art representative and to reproduce things as they appear. The third dimension, however, is still too advanced for him, although it may be taught in a very rudimentary way.

VI. Systematic art teaching should come in very rapidly and not much before the age of ten. The third dimension comes by foreshortening of areas, the distortion of angles, the convergence of receding parallel lines. Light and shade, too, is late. Not until puberty does the ideo-plastic stage entirely vanish, so that imaginative free drawing should still have its place. Several child studies have shown that the best technical work by children is when they draw from memory rather than from objects. Drawing is—if it is an art—an expression of the soul as well as an impression. What we really produce is our ideas of things. Kik, in his study of very gifted children, found that they were stronger in humanistic and realistic topics than in language and arithmetic, and those who could draw well from fancy or imagination could also draw well from life. Drawing is a great agent in building up the concepts of concrete things, in definitizing memory and making our images more correct. To neglect free-hand drawing abates interest generally. School drawing and free drawing are two very different things and their present separation in the school is specially calamitous for gifted children of the ideational type, whose power to draw is thus paralyzed. The best adjective that can be applied to the masterpieces of the school exhibition is "pretty."

VII. At about puberty, drawing ceases to be merely the registration of ideas and shows signs of being pure art. There is often a real leap in the development of special powers near the eighth grade. Now, tone and "*Stimmung*" may come in, although only a few children cross this critical line without help, and it must usually be very careful and personal, for this is the nascent hour of genius which, if it comes at all, will now make its appearance. At this age most children relapse into the old schematic way without either the originality or the satisfaction that they had as children in their work, so that if they continue to draw, it is highly conventional. After fourteen drawing instruction should probably not be given, certainly not as an art, save to specially gifted students.

VIII. All systematic instruction after the age of ten should be in the hands of a special teacher, who should strive to see that the child lingers long enough in each stage to get the full benefit of it, and also should at the proper time lead him over from the naïve to the artistic point of view. Here the weakness of the many special methods, many of which have been so heralded and so widely adopted, appears. We must, therefore, on the whole, incline to agree with the critics of our present method, one of whom says of the results of an entrance examination to a normal school, "There was not a correct drawing in the entire set." Another says, "Art to children who have taken our public-school courses remains unknown." Still another says that the grade children as a whole draw better than those in the high school who have continued their studies, so that to try to stimulate the work of lower by higher grades, as is often recommended, would mean degeneration. In the many studies of favorite school topics which have often been made in this country, drawing stands low in the scale of favor with children. A state inspector, reviewing the work of the schools in this field, says, "The results are not much of anything." Another in a large city declares that most children "receive little or no benefit of their drawing lessons" and that efforts have been misguided, and yet another teacher in a girls' college says that pupils come to her drawing lessons "with the power of observation hopelessly atrophied."

Finally, we must not forget that artistic drawing is not a language that any large number of adults will ever speak. Although they may understand it, the vast majority will make very little use of it. The chief thing that will persist is appreciation, and hence stress should be laid upon showing and teaching to enjoy pictures. Most, even of those that show most talent in school, will drop it as soon as they leave, so that the time spent upon it, even though it involves some valuable coördination of eye and hand, might be better spent. The case is quite different with industrial and mechanical drawing. This not only gives deftness, but the knowledge of it acquired in school is far more likely to be serviceable in after life. Even in this, however, any considerable degree of proficiency is especially for the few rather than a goal for the many. Thus, we must conclude that quite enough in time and money, if not too much in the aggregate, is now spent upon drawing in our schools at large. The education of artists is a very different matter. They are a small select class whose training should be begun early and made highly professional. The real test of value for the masses of our pupils in this department is thus the formation of good taste in selecting and capacity to enjoy works of art wherever they touch life.

One hundred people see pictures to every one who reads a book. I lately read a German brochure on what the author called the "picture mania" in school. The modern child, he said, has pictures to the right, to the left, and before him all the time, and so gets his knowledge with too little effort, and he should work for it, and then he would retain it longer and prize it more. I think he is wrong. Many believe we are growing more eye-minded and think more and more in visual images. At least the American child needs more, not less, pictures. How, e. g., Homer, not to say Virgil, the Greek dramatists, Shakespeare and the great masterpieces would be vivified by an abundance of even cheap reproductions of the best pictures with which artists have illustrated classic story! History, too, has been visualized not only by portraits, but by scenes of battle, congresses, and other pictorial events which have idealized and could give great enhancement of zest to its dogged pages. Science, too, cannot have too many illustrations. Our geographies especially, illustrated as they are now, need a great profusion of additional views of mountains, valleys, shores, seas, landscapes, towns, streets, and everything else which may be made so vivid as almost to take the place of travel. The stereoscope is now so developed that groups of scenes and hundreds of binocular pictures of, e. g., Palestine, Egypt, India, the Rocky Mountains, etc., give the spectator an almost complete sense of being present and actually gazing upon landscapes, cities, ruins from various points of view which are often indicated on the map, one after another, so that one knows the point of compass toward which he is looking, etc., until the illusion of actually seeing everything is almost complete, and after a careful course of such pictures he almost seems to himself to have visited the locality. The illusion of depth, perspective, and the isolation of indirect vision are the essential factors of this seeming transportation. If some time in the future these proxy trips should be supplemented by moving pictures and phonographs, as they are sure to be, then the pupils of, e. g., the geography class will take ideal trips through foreign lands, see savages, jungles, industries, and all kinds of life without leaving the classroom. Here, too, let me add that the upper grammar grades should and will, sooner or later, be inducted into the graphic method by which curves and diagrams, supplemented by shade and color and all the other devices known to statisticians to make figures live and talk, will be learned as a new kind of visual language. Marey, the French physiologist, long ago showed the possibilities of such drawings by which walking, flying, heart and lung action, and everything else possible on his tambour could be recorded and read. I do not know that anyone has yet attempted to write even a sketch of this important chapter in pedagogy. It does not fall, of course, in the domain of pure art, but with the scores of very clever and striking modes by which all kinds of growth, financial and business relations, productions, and now even physical forces and the voice itself, can write their essential record and be read as intelligently as the Morse and other codes, will tend very much to ease the strain of acquiring knowledge. Every school should collect and use not only stereoscopic, but lantern slides, pictures, illustrative matter, charts made by hand, and things purchased in its arsenal of pedagogical appliances, for dexterity in the production of these is sure to be one of the most labor-saving devices in the whole field of education of the future. But here, of course, we are nearing the limits of art proper and poaching a little upon the domain of drafting, the prodigious utility of which is a large theme by itself.

CHAPTER XXI

SCHOOL GEOGRAPHY

School geography a mixture of half a dozen sciences, chaotic, encyclopedic, rarely written by real geographers—Characterization of the different methods and beginnings—*Heimatskunde*—The solar system—Physical nature and man—Old versus new methods—A few special studies of children and opinions of experts—The international geographic institute proposed by Bartholomew and Geddes—A proposition for reconstructing geography in the higher grammar grades and making it an introduction to astronomy, geology, paleontology, botany, zoölogy, anthropology, industry, and commerce.

School geography is contemporary world-lore for the masses. It is the universology of the culturally poor, the *et cetera* or the residual, the rest after the three R's or stock topics are exhausted. It is made up of small but varying elements of the following topics: astronomy, climatology, meteorology, mineralogy, geology, paleontology, botany, zoölogy, anthropology, and history. It tells something about the sky, air, clouds, storms, the sea, rivers, the earth, soil, trees, plants, crops, or the flora and fauna generally, agriculture, manufacture, and commerce, all classes and races of men, from the Kaffir in his kraal up to the latest arts, inventions, discoveries of modern man, government, finance, forestry, navigation, railroads, exports, imports, maps and their making, industries and occupations, clothing, food, health, and disease as affected by locality, architecture, hydrography, sociology, etc. In short, it is the *scientia de omnibus rebus et quibusdem aliis*. It is so encyclopedic that one might wager with confidence that no essential topic of human concern could not be found, or at least mentioned, in some geographic school text-book. The methodistic pedagogue must dispraise it because it is almost all matter with almost no method, and he prefers these relations reversed. To him it is the sickest of all sick topics of the curriculum and its unity is that of the sausage and not organic, for he forgets that good and well-composed hash may be the very most nutritious of all diets, containing just what every part needs in due proportion. I cannot think of a single school geography written by a man eminent enough to be eligible to any society of scientific geographers. They are usually composed by schoolmasterly minds and generally contain about everything the author knows or can assimilate in all the above wide fields. Hence, it comes that many of our school geographies, the most costly and financially profitable of all texts, are the publisher's pets and the true scientist's abomination. Between competing houses the rivalry of agents is here hottest and corruption is most liable, for fortunes are often at stake, and the successful artificer of a good geographic series can live thenceforth at his ease, although no royal society of geographers has ever heard of him. No other nation ever invented text-books on this subject that began to approach the magnificence of those in use here, and the subject is taught by a diversity of methods and material unapproached anywhere else. Here, then, we have a unique creation of American pedagogic genius very significantly expressive of the character of our people who crave to know something, but not too much, of everything. Seriously, I half believe we are partly right and that we have here achieved the real pedagogic triumph, a *sui generis* masterpiece. Here is something not "made in Germany," but by a recipe all our own. Especially of late, competition has been very fertile in novelties and variations. Some text-books have hundreds of cuts, often half superposed like a pack of cards open at one end, whereon bamboo, kangaroo, cockatoo are alluringly displayed at the outer edges of the fan, yet overlap where they converge toward the center, as if they were slyly and coyly ready to "skidoo" if the pupil sought to make their acquaintance too closely. Anything from nadir to zenith may be included, because it can be associated with a locality, and this kind of special new integration is a preliminary darning stitch to connections which make unity on a higher plane. It may lead to a topographical habit of mind which spots every event and person down where it belongs, a habit always referring any thought to maps of big or little scale, as if space and these configurations were the king categories. Thus, geography purveys liberal culture in the most cosmic sense of that word, comprising the domains of both nature and of man. It ought to be a good field in which to try out individual tastes and talents, for surely the child not interested in some domain here is incapable of much intellectual development. It ought also to serve as a sprouting ground for more special interests in one or more of those sciences that compose or contribute to it. Through it the American who leaves school at the sixth grade gets his first and almost only peep at the wide world in which he lives. It is his elementarized university course in which all is reduced to the lowest and smallest terms. It is introductory to almost everything else, or can be made so. No son or daughter of man can ever hope to be wise enough to know all that is therein begun. It needs and could utilize perhaps a greater wealth of illustrative material than all other topics combined, so that mere text-book geography is a crippled thing. It can and has been approached from about every direction. Every element and item of it has been stressed here or slighted there. It can be and has been the most mechanical and repulsive as well as the most fascinating and stimulating of topics. Perhaps nowhere is the pedagogic world further from a consensus than as to all its whats and hows. It has been the theme of syllabi and committees' reports galore. Some schemes and texts begin logically with the solar system, perhaps with an orrery, and then come to the earth, with a globe, its revolutions, rotations, seasons, climates, zones, land and sea, physical geography, plants, animals, man. Others almost reverse this order and start with *Heimatskunde*, the schoolroom and yard, and widen from this center, while others start with man and are humanistic and anthropocentric throughout. Some bring in early, or lay special emphasis upon heat and cold, warmth, drought, air, soil, mountains, rivers, forests, and their effect upon the present configuration and products of the earth; then consider it as the home of man. Some would make an ideal start from an outlook tower, mountain, or as one does from an airship or balloon, to get a bird's-eye view for map drawing as featured. In earlier days pupils memorized, e. g., all the capes around continents in regular order, then rivers, mountains, and volcanoes in the order of their height or by countries. Also, so many cities in each state must be remembered in the order of their population. In my school days many such lists were thrown into doggerel rhythm and sung, and I can still recall scraps of this musical geography, and examination day, when the august committee were present, was that year largely a concert. Bounding states and countries was generally emphasized and, as in spelling schools, sides were chosen for contests in these exercises and visitors were asked to name any state for a pupil, designated by the teacher, to bound. For each state we must, as the other rubrics, give area, population, chief industries, cities, rivers, the capital and next largest town, at least. One teacher had dissected maps which we must put together and, best of all, one gave us little paint boxes to color the maps so that no contiguous states would have the same hue, though we usually followed the map from the book and wondered why Massachusetts, Texas, and Georgia were always yellow, Connecticut, Kentucky, Alabama, and Arkansas always red. We wondered, too, why so many of the names of mountains, rivers, etc., crisscrossed and why the type was often so fine as to be undecipherable. Popocatapetl, Kunchinjinga, Terra del Fuego, Guadalupe, Ypsilanti, Yang-tse-Kiang, Hoang-ho, Kamchatka, Port au Prince, Shanghai, Hatteras, and Himalaya were primarily sound symphonies like opodeldoc, elecampane, spindrift, eleemosynary, and were slowly distinguished, most of them, in the end, as capes, rivers, and were found and spotted on the map. We were never shown the map of our own town or county. This was the way in which Morse and, especially, Mitchell were taught.[1] Some of the best of these old principles seem to me to have been embodied in Schutze's "Amusing Geography" (San Francisco, 1900), with its songs, puzzles, all the state flowers and, above all, the system of map drawing by caricaturing outlines, e. g., Italy as a boot; Massachusetts as a skinny hag pointing to her sunken mouth; Boston, with her long arm, Cape Cod; Wisconsin, a badger; West Virginia, an eagle; Maryland, a monkey wrench; Kentucky, a shoe; Florida, a net, an, on the whole, very suggestive text for teachers to spice lessons with. Rommell's *Heimatskunde* (Leipzig, 1876) starts with a map of the schoolroom, then the yard, then a cross section of the street, showing paving, sewers, basements, gas pipes, etc., and widening out slowly to a circle of larger radius, but does not get far beyond Leipzig. King ("Elementary Geography Reader," 1902), after twenty years of study of children, whom he says have been systematically neglected, uses types and ignores generalities, stressing journeys and bringing out as a feature, child life in other lands. Davis, Tarr, Wright, and others stress physical geography, of which Houghton has a pamphlet of "Start right" questions. The Chicago Conference, 1892, recommended the use of government maps, at least of the region, in every school. In an admirable old book [1] it is advised that pupils be taught how a few base lines are measured with the greatest detail and then from triangulations, main points are fixed as a basis for map making, and some considerable emphasis is laid on the differences between topographical, cadastral, military, and other maps. Dr. W. T. Harris, after reminding us that school geography is far broader than scientific geography, would make this subject the basis for understanding sociology, and urges that we use it largely to counteract the

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[1] The method almost universally in vogue of translating geographical names into the language of the country where the maps are made is not only wasteful and unpedagogical but often productive of absurd results. An American, speaking of Warsaw to a young lady born and brought up in that region, was finally asked with a puzzled look, "Warsaw, where is it? I never heard of it." And why should she? her native place being known to her as Warschau, and the W as pronounced in English being an unfamiliar sound. American school children are taught of Cologne, of Vienna and Turin, but when they visit Europe they buy tickets to Köln, Wien, and Torino. It is true that European railroad officials have become expert in inter-

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preting the various aliases of the places for which tickets are requested and one can even buy a continuous ticket according to which one enters the station at Aachen but departs from Aix la Chapelle. The absurdity perhaps becomes more apparent to an American, when he reads in a German newspaper of an accident in the United States in the *Felsengebirge*, which, after a little reflection, he decides must mean the Rocky Mountains, or hears Lake Superior referred to as *der obere See*. A German map is a perplexing puzzle to the average American, and an American map of Germany a source of amusement to the average German.

[1] W. G. D. Whitney. Geographical and Geological Surveys. Cambridge, 1895. 96 p.

habit of premature specialization. Leete would connect it chiefly with man, history, and politics, and bring in physical and astronomical geography later. Humboldt, Marsh, Guyot, Ritter, etc., have their disciples among the teachers. Some stress appliances and apparatus in the teaching of this subject, of which there have been several exhibitions outside of school museums, in which this is always a department. The Frye régime has been long and beneficent and is sometimes said to mark the advent of a new geography, although its sway is now being challenged. To many, indeed, it was a revelation by the wealth of its illustrations, the range of its topics, and its strong and incessant appeal to thinking in the domain of physical geography, slopes, divides, river systems, soil, shores, thermal phenomena, air, rain, as fundamentals upon which a more humanistic political, commercial geography were built, the final thought being the interdependence of nations. Tarr and McMurray would emphasize personal experience afield for a time, and then, when systematic teaching began, would focus upon man throughout instead of on nature, and reorganize about all the matter in the subject about a humanistic center. So first comes food, clothing, and shelter among different people, and then something of land, water, air, etc.; then industry, commerce, and government; then world geography and maps, chiefly our own country taught in section groups of states. The Tarbell report of the New England superintendents rubricized topics and treated of the definition of geography, its value, its aims, the distinctions between the old that was static and the new that is dynamic and genetic, and would have constant reference to causes. Thus, it discusses what would have occurred had conditions been different, treats of the relation of geography to other topics—all, as it seems to the writer, in the most caddish, conventional, and schoolmasterly way. The older German works, Oberländer, Leisner, Segdlitz, Hahn and the rest, are almost entirely without illustration and are condensed repetoria of what the teacher supposed had to be instilled, and the matter was mostly descriptive of countries. Germany, too, has had its fantastic and amusing methods, geographical card games, mnemonic systems, etc. But here, too, the genetic movement has brought the better use of maps and a gradual and beneficent change, while Faust and Netz's outline drawing and admirable geographical picture books, photographs, etc., are in use.[1]

L. E. Bigelow[2] conceives geography as the relations between things organic and inorganic. It should also develop observation and reasoning. Its facts are closely interrelated, and man and nature here come into closest rapport. Indeed, in elementary work, man is the central figure in geography. His interest in playing Indian and Filipino must be drawn upon. The Eskimo hut, the Kaffir corral, may be built. Out-of-door work, or if not that, the sand board may be used. Life in Mexico and elsewhere, especially child life, may be used, and the dividing of apparatus is often a good provocative. Conferences of nations, each child choosing its own part, description of journeys, drama, allowing each to decorate a portion of the schoolroom wall, access to books and journals, collection of railroad, steamboat, and other advertising matter—all these may be used in a way to vitalize the work. There also may be history stories written by children as low down as the third grade, while of course pageants and festivals are now largely drawn upon.

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[1] See Chrn. Gruber, Die Entwickelung der geographischen Lehrmethoden. Munich, Oldenbourg, 1900. 254 p. Also R. Trampler, Ueber die zweckmässige Anlage eines Atlases für Volks- und Bürgerschulen. Druck u. Verlag der K. K. Hof- und Staatsdruckerei Wien, 1879. Hermann Wagner. Die Lage des geographischen Unterrichts an den höheren Schulen Preussens um die Jahrhundertwende. Hannover, Hahn, 1900. 68 p. Hans Trunk. Die Anschaulichkeit des geographischen Unterrichts. Wien, Carl Graeser & Co., 1902. 252 p. Gustav Rusch. Methodik des geographischen Unterrichts. Wien, U. Pichlers Witwe & Sohn, 1903. 140 p. Anton Becker. Methodik des geographischen Unterrichts. Leipzig, Franz Deuticke, 1905. 92 p. Br. Clemenz. Lehrbuch der Methodik des geographischen Unterrichts. Breslau, Max Woywod, 1906. 246 p. Wenzel Stibitz. Der Unterricht in der Heimatkunde. Leipzig, Franz Deuticke, 1906. 73 p. Richard Fritzsche. Die neuen Bahnen des erdkündlichen Unterrichts. Päd. Mag., Heft 169. Langensalza, Hermann Beyer & Söhne, 1906. 121 p. A. Haustein. Der geographische Unterricht im 18. Jahrhundert. Päd. Mag., Heft 276. Langensalza, Hermann Beyer & Söhne, 1906. 58 p. H. Scherer. Führer durch die Strömungen auf dem Gebiete der Pädagogik und ihrer Hilfswissenschaften. Leipzig, Ernst Wunderlich, 1910. 210 p. Alfred Kirchhoff und A. W. S. Günther. Didaktik und Methodik des Geographie-Unterrichts (Erdkunde und mathematische Geographie), 2te Aufl. München, Beck, 1906. 68 and 47 p. History of Methods of Instruction in Geography, by Jefferson R. Potter. Ped. Sem., Dec., 1891. Vol. 1, No. 3, pp. 415–425. Methods and Aids in Geography, by Charles F. King. Boston, Lee & Shepard, 1900. 518 p. For bibliography of articles in N. E. A. Reports, see Proceedings of N. E. A. for 1906. Geography for Secondary Schools, by Richard Elwood Dodge. Jour. of Geography, 1907–08. Vol. 6, pp. 241–254. Teaching of Geography in Elementary Schools by R. L. Archer, W. J. Lewis and A. E. Chapman. London, Adam & Chas. Black, 1910. 255 p.

[2] Social Life in Geography. The Elementary School Teacher, Nov., 1908. Vol. 9, pp. 113–120.

She [1] finds that from the fifth to the eighth grade individual work can be made effective, and that the child will work with all its powers to make its own contribution, and thinks that of all the topics in the curriculum, geography and history are best adapted to this method. The teacher, of course, needs a card catalogue and should keep tab on magazines, books of travel, stories, and some United States publications, and the work can be begun wherever there is a public library. The teacher must, however, select and organize the material and adapt it not only to the class but to each pupil, a report taking the form of a short lecture by the pupil. Several should report at once upon various phases of large topics. This will enable them to compare their work, weigh evidence, find sources, and often these reports may be written. Sometimes this method awakens interest in the home.

A. A. Davey [2] wants in every school a wind chart, sun dial, rain gauge, thermometer, as many charts and maps as possible; also lanterns must be used. Geographical excursions are often stressed in the open-air schools of the London County Council. Books of travel, history, tableau, costumes, pageants where children personate different races, all help geography.

The Journal of Geography, a monthly periodical, established in 1900 for the benefit of teachers of geography and edited by R. E. Dodge of the Teachers' College, contains many valuable and interesting special memoirs, although it is largely devoted to rather small devices. Teachers' geography clubs are advocated to work out programs of local geography, to conduct excursions, to arrange bibliographies, study regions, report on reading or events, etc.

F. P. Gulliver would not have geography taught as a merely informational subject. It is the beginning of various sciences and treats of the complex interrelations of man with plants, animals, soil, etc., which surrounds him. The beginnings of geography should not be the same for all schools, but it should start in every case with the locality. Every tour or trip the children take should be utilized.

A. L. Bishop [3] pleads for more recognition of the culture value of geography.[4] Germany leads, thanks to Humboldt and Ritter, but in nearly all countries the development of geography as a university subject has mainly taken place within the last twenty-five years and much has been done within the last fifteen. Paris has a chair of colonial geography, seminaries, etc. There are very few professors of geography in this country, so that we are far behind.

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[1] L. E. Bigelow. Individual Assignments in Geography. The Elementary School Teacher, January, 1909. Vol. 9, pp. 250–256.

[2] Geography in London Elementary Schools. Geographical Teacher, 1909. Vol. 5, pp. 90–95.

See Science in Correlation with Geography and Mathematics, by T. P. Nunn, Educational Times, April 1, 1908. Vol. 61, pp. 175–180.

[3] Geography in the Universities Abroad. Educational Review, May, 1909. Vol. 37, pp. 477–481.

[4] See also Scott Keltie's Report, in 1885. And M. Levasseur in a paper read before the Sixth International Congress of Geography in London, 1895.

In his Idola Pulpitorum; the Pitfalls of the Practical Teacher, A. J. Herbartson[1] finds that the chief idol in geography is a misconception of the scope of the topic. There is also mischoosing and misusing of maps, and of words, false economy, the idol of place names, of neglecting classification, false analogy, vicarious work, and so forth.

J. F. Chamberlain[2] thinks geography is not as vital a part of school life as it should be; that our text-books, although improving, are too meager and statistical. The map teaching is weak, not developing thought. The books should limit their scope so that great areas should be treated more fully and more interestingly. Introductory geography should be based on industry and social phases, for here children's interests are strong, and this is the point of connection with the home. More pictures, raw material, etc., are necessary. Geography, he says, should develop interest in our fellow men. Hence these stories of children of different races are of value. Geography should train the imagination, also the reasoning power. It is more important to know why a city is populous than what its population is, to know why a river is long than to know its length. Perhaps to learn a few things, for instance, our own country, well, is best because it can be used as a basis of comparison. It should teach children to interpret their physical and social environment, to understand the forces that have shaped the earth. Children best understand it who have had access to farms, but gardens are a real help, while excursions are indispensable.

G. D. Hubbard[3] shows that geography is the meeting place of the physical and human sciences. The earth is studied chiefly as the home of man, and history, economics, industry, as well as science find here their focus. The geography of the elementary schools should be continued through the university. This is illustrated in such topics as the geography of a city or of the tropics. There are plenty of opportunities for research, for there are many habitable lands of which little is known and new facts are constantly arising about territories already surveyed. Many domains need more systematic study. Papers are scattered and uncoördinated. Very much of the known world is inadequately mapped. Seven or eight years ago several governments supported a scheme of sheets on the scale of one to one million or about fifteen and three quarters miles per inch and this work is now progressing rapidly. Many a failure in business has been due to geographic ignorance. In this country, the Washington Bureaus, in Germany, the universities, direct research in this field. The geographer can really begin his work only when the physical maps are finished. As for utility, history, politics, anthropology, commerce, biology and agriculture are vitally aided. Most teachers of geography in normal schools are almost entirely without special training and the same is true of most of the teachers in the high schools. A well-equipped department should contain not only a library, but rooms for maps, specimens, technical instruments, etc. In seventeen of the German universities there are departments of geography and there are thirteen such departments in England, the best equipped in all respects doubtless being that of Berlin.

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[1] The Journal of Education, Jan., 1908. Vol. 30, N. S., pp. 33–35.

[2] Geography in the Life of the Pupil. Elementary School Teacher, October, 1907. Vol. 8, pp. 65–72.

[3] College Geography. Ed. Rev., 1908. Vol. 31, pp. 381–400.

David Gibbs[1] made an extensive investigation of the teaching of geography in American schools and reaches the following conclusions: 1. The development of geography, as shown historically and by study of the text-books, shows little change for several centuries. 2. The history of the methods of teaching geography shows that the necessity of adapting the materials and methods to the child was recognized as early as Strabo, but in actual practice little progress has been made. 3. The present practice in Europe shows a mixture of good and bad methods. The emphasis on observation and self-activity has developed home geography, but this is chiefly confined to the lowest grades. The work has been made progressive in only a few places. In both European countries and the United States secondary geography is without field work and without contact with life. 4. In the normal schools the separate courses in methods, general geography and physical geography should be combined into one course, covering the same ground and the same methods which the pupil must later use in her schoolroom. But in connection with each topic the teacher should learn the wider interpretations. 5. Geography in colleges and universities has reached its highest development in Germany, but is rapidly taking place with the other natural sciences in European countries and to some extent in this country. Its problems require a knowledge not only of the natural sciences but of historic, economic, and social progress. 6. In the elementary schools the work is too closely limited to the text-book and pays very little regard to pedagogic order or adaptation to the child. Special studies of children and children's interests should be utilized and made the suggestive bases for choice of methods and arrangement of materials in the instruction of geography.

E. M. Ward[2] reports Monroe's results, who asked 2,002 boys and 2,053 girls, from western Massachusetts, "If you could visit some place, tell what place you would like most to visit and why you wish to visit that particular place." Cities and towns were preferred.

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[1] The Pedagogy of Geography. Ped. Sem., March, 1907. Vol. 14, pp. 39–95.

[2] Geographic Interests of Children. Education, Dec., 1897. Vol. 18, pp. 235–240.

There was much local interest. New York led; then came Boston, Washington, Paris, Rome, London. Over three hundred towns in Massachusetts and nearly as many others in the United States were named. Some state or country was named by 1,403, and this interest increased as the children grew older. California led; then followed Florida, Canada, England, China, Japan; 173 preferred places of natural wonders, like the Yellowstone or Niagara. The basis of the child's interest in buildings is pictures. Nearly six hundred wished to visit the homes of friends and relatives; 110, their birthplace; 612, historic places; 517, beautiful scenery. Five sixths of the answers showed human interest. Miss Buckbee gave a similar test to 600 Philadelphia children. The results were surprisingly similar. Children delighted in stories of Eskimos, Hottentots, and Bushmen who were a little above animals, as if the child began where primitive man did. The repetition of the history of the race is seen in interest in dwellings, which often passes through the cave and tree stage.

The most ambitious installation of geography yet suggested, although not yet realized, is that by J. G. Bartholomew, F.R.S., and Prof. P. Geddes,[1] with draft of plan by Galeron, which is to contain an immense revolving globe, eighty feet in diameter, with reliefs on a uniform scale of 1 : 500,000, as planned by Reclus. The proposition is to farm out the metallic sections of this huge globe to each country, state, perhaps town of county, and for each to bear the expense of inscribing, true to size and elevation, and therefore microscopically for the most part, all details of each environment that can possibly be etched upon it and then have all these parts put together. All new discoveries, too, are to be recorded in their place. Each visitor can have this monstrous globe so turned that his own environment, wherever he comes from, is under his eye through a powerful glass and he can see all that is reproduced there. Another wing of this institute is to contain a celestial globe of the same size, also to rotate by exact clockwork, showing celestial phenomena. From the back and between these large wings is to arise a broad and high outlook tower of many stories, ending in a cupola containing a camera obscura which can be turned any direction, so that a picture map of any part of the visible landscape, with all that is going on there, can be turned upon the table beneath. One large auditorium is for spectacular reproductions of scenery of various kinds panorama-wise. There are lecture rooms in which accounts of travels are given, and stock rooms for photographic and stereoscopic slides and every other kind of reproduction, and a vast library of books and maps. There are also a number of museum rooms arranged somewhat by countries and containing their various products, and a congress hall where a federation of all geographic societies can meet. This institution is to be "a temple of geography devoted to all the universe in general and to the earth in particular." Every country, aspect and device possible is to be employed, so that an audience can almost imagine themselves taking a trip to any part of the world. It has been called a cosmological theater, a storehouse and plan so ingenious and vast that it suggests Bacon's splendid dream of Solomon's house.

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[1] Plea for a National Institute of Geography, with note by P. Geddes. Rep. from Scottish. Geog. Mag., Mar.–Apr., 1902. 7 and 4 p.

We have not yet solved the problems of geography for the upper grammar and high-school grades, and I do not think we shall do so till we frankly regard it as primarily an introduction or propædeutic to the various special sciences which contribute to it. This should stand out more distinctly and more unity and integrity should appear. There should be for these grades, for instance:

I. A *primer of astronomy,* as such, composed of all the material contained in the large geographic text now in use and more, beginning perhaps with the nebular hypothesis, containing something about the worlds or systems in the process of evolution, a little on the origin of our own system, the youth and old age of worlds, characterizations of planets and how they are now studied, Jupiter and its moons, Saturn and its rings, Mars and its possible channels and polar ice cap, and much about the sun and moon (*a*) as they appeared in folklore and myth, appealing to the heart, and (*b*) as science knows them; how the moon, the wanderer, the measurer, controls the tides, how it has been adored and worshiped, what the state of its surface really now is, the striking difference between the moon of sentiment and the moon of science, than which no contrast could be greater. The moon plays an immense rôle in the child's curiosity, and again in adolescent sentiment and revery. These springs of interest should be tapped and utilized, and not left to run to waste. Even the vulgar superstitions about our nearest celestial neighbor should be cleared up and the momentous transition to the moon of selenography should be made, as it could be with great effectiveness, with children in the upper grades. So of the sun, from Hercules and the other early solar heroes to Wilhelm Tell and his unswerving sunbeam arrows. Something should be introduced from astrology and the old conception of concentric crystalline celestial spheres, something of great telescopes, observatories and their work, and the most salient facts concerning some of the fixed stars, such as Sirius, the pole star, and a few constellations. Perhaps the whole might end with some explanation of climate and seasons, latitude and longitude, the ice age, etc. A little germinal matter here would give a great uplift of soul and reinforce religion itself, on the principle that the undevout astronomer is mad. All these educational possibilities should be realized in a way that is not represented by any text-book and which, probably, an astronomer could not write. The greatest waste in the world is where vital interests of youth go to seed. Here, too, charts and apparatus galore exist elsewhere and should be introduced into the upper grammar grades.

II. Another elementary text or sprout garden for zests in the collection or pedagogic encyclopedia, which I am now compiling, partly in the place of and partly as a supplement continuing the instruction in geography, should be an epitome of the story of the earth, a *primer of both geology and paleontology*, with no end of illustrations of landscapes, scenery, shore, mountain, rivers, deserts, and representations of the larger or chief astounding species of long since extinct animals. Children have a right to be inducted into these rudiments and to be told a little of mines and mining, metals and metallurgy, something about iron, steel, bronze, copper, gold and silver, coal and the rest, of erosions, sand and the changes of sea and land, the earth and meteorology. Nor need we simplify or elementarize too much. Here we stretch our ideas of time as we do those of space in astronomy. To children this is a field rich in humanistic interests, although industrial zests follow hard after, especially with boys. This is a story of how the earth has been shaped and loaded up with the supplies that man wants.

III. When it comes to vegetation, we find " nature study " which has arrogated the use of this term and narrowed it to include biological elements only already occupying this part of the field, although largely neglecting the geographic viewpoint. Hence here, too, we need an elementary text of a new species, on plant life generally and its history, folklore, utilities, etc., from tropical forests, the early coal and peat beds and petrified forms down. This work should be a prebotany, but with a minimum of technical nomenclature, a prelude to the natural history of plants, with abundant utilization of the rich and rank mythic material on trees and flowers, so that the humanistic interests which center here could be turned on, as I have elsewhere shown (see my " Adolescence," page 202 in Vol. II). Here, too, should be included something about the tree life of man's primitive forebears, some elements of forestry and deforestization, the older and the newer uses of wood, the domestication of plants, and the dawn and present status of agriculture, the Bureau at Washington and its work, gardening and horticulture. Some connection should be made between school gardening and the semiscientific botany here postulated. At this stage here, as in other topics, we should have quite as much regard for the stage of development of the child's mind as to the integrity of the science, although the latter should be brought out as the geographies do not do, with their crops, products, exports and imports of vegetables, dyes, drugs, condiments, foods, material for clothing, building, etc. This, too, needs abundant charts and should treat generically the general topics of cross-fertilization and the economics of nature regarding seeds and fruits, should deal with seed time, harvest and its festivals, the death of winter and the springtide resurrection, and what these have meant in culture-history and for religion.

IV. As to zoölogy, it should have some integral representation embracing the viewpoint of natural history, together with economic, agricultural, historical, and other material, with full recognition of the principle that the most useful is always and everywhere the most educative of influences.

V. The same is true of anthropology. Some rudiments of information concerning races and modes of life of different groups of the human family have remarkable power to fascinate and instruct children.

VI. Industry and commerce might perhaps, sooner or later, have a similar introduction.

VII. More unity and coherence should be given to the geographic material concerning civics that is scattered through the large texts, and something should be added to round it out, so as to inculcate the basal principles of active and intelligent citizenship.

Thus, my plan is for a better organization of material already taught in these lines, with some additions to it, in order to evoke a dawning sense of what the great departments of scientific knowledge, that in our geographies are mixed puddingstone-wise, really mean, to arouse interest, curiosity, and to give apperception centers about which future knowledge of the world, physical, industrial, and social, in which we live, may accrete. To do this would involve much revision of current practices and ideas and would require a concerted sifting out of the things best worth teaching and which pupils of this age are best capable of learning all over the length and breadth of these great sciences. This work could not be satisfactorily done by any one man, but should be the coöperative work of many who are fit. There are few greater needs than that of creative pedagogic new departures in this vexed domain. Scientific leaders have not yet seen that here, and not in urging physics upon the high schools, is the psychological opportunity or point of attack for bringing science into, and worthily installing it in, our educational system.

CHAPTER XXII

SOME DEFECTS OF OUR PUBLIC SCHOOLS

(1) The defects of school boards here and their organization in Europe —(2) Lack of professional training in teachers—(3) Pay of teachers, their quality, and dearth of teachers—(4) Feminization of teaching force and its results—(5) Coeducation and its dangers—(6) Paternalism—(7) Long vacations—(8) School attendance of those enrolled and illiteracy—(9) Our roving population—(10) Defects of grading and promotion, variations of solutions here and abroad—(11) Examinations out of season—(12) Percentage of dullards—(13) Retardation—(14) Eliminations—(15) Age of entrance and the kindergarten—(16) Length of daily school period and distribution of work —(17) Topics that are useless and bad methods—(18) Mind-destroying evils—(19) Absence of religion and morals—(20) Latin—(21) Dominance of the college over the high school—Specific criticisms —Are we in earnest?—The ideal school.

Shall we criticise our public schools? Until lately it was impossible for anyone, even within the penumbra of the system, to do so with impunity, partly because it was felt to be so good and partly because it was deemed essential that the confidence of the public that taxes itself for its support be not jeopardized. Moreover, a sensation-mongering press, which is liable to magnify every suggestion of evil, must be considered. Thus, it was counted not only the worst of bad form for a teacher to find fault with the scheme of things under which he or she worked, but in many a case criticism was visited with condign penalty. Happily this state of things is rapidly passing. Indeed, a literature of recent censure, and even condemnation, is now large and growing, and no one is the worse therefor. In a system so vast and varied there must, of course, be many good and many bad features. In what follows I have tried to sum up the chief censures made not upon details, special features, or parts of the system, but upon the public school as a whole. It is of the utmost importance for educational leaders to see clearly the present situation in its largest aspects and never for a moment to blind themselves to defects. These, I think, may now be roughly put as follows:

I. *Our school boards*, which are elected by the wards or on a ticket at large, or appointed, are, as a whole, incompetent because they, as a rule, do represent the people in each community, and thus where the need is greatest the competency of those responsible for meeting it is least. In this connection, too, should be mentioned the vast body of our school legislation, amounting in all the states to many scores of laws per year. We are constantly tinkering, and while progress is unquestionably made on the whole, this constant change causes a sense of instability. It is not difficult to pass good laws, but our great trouble and weakness lies in enforcing them. This is one reason why our system often looks to properly credentialed inspectors from abroad, who are personally conducted, better than it is. The law is public: its environment is a private matter; and as to its nonenforcement, there are many reasons for concealing it even from the great body of teachers, some of whom thus live in a fool's paradise as to the actual value of the system itself. In only favored communities is a constant policy adopted and maintained for a series of years long enough to bear fruit. Thus it comes that very few cities in the country have seating capacity for all the children who should or even for those who would otherwise be in attendance, and this discrepancy between enrolment and attendance is reckoned with and discounted wherever room is deliberately provided for a less number than should be present. The office of school-board membership should now be not only rescued from politics, but should be more or less professional and should absorb the most serious attention of the best members in every community. The board should not be so large as to be unwieldy and its members should not declaim as in a forum or to the press, but should conduct the duties of their office on strictly business principles and with ordinary business economy in all matters, from the selection of sites to the planning and the placing of contracts and seeing that they are lived up to. The direction of schools in some of the best European countries is so organized that a considerable number of the very best citizens of each locality (over 2,000 in Berlin), or even ward, take a very active interest in education and hold some kind of advisory office which is not only honorary but the functions of which are recognized as a serious public duty which a state has a right to demand of those most competent to render it. There is, moreover, still some corruption in many school boards by text-book and other supply concerns, especially where the state contracts for books. So great is the influence of these material and mercenary motives that in many places no superintendent, principal, or even teacher who insisted upon independence of these influences could long retain his or her position. Even the election of officers of state and national associations of teachers has felt this unwholesome influence which, in some instances that I have pigeonholed as they have come to my notice during the last score of years, has been most discreditable to our system and has occasionally become a public scandal. The feeling of members of our school boards is still sometimes that they must get something out of their office, instead of rendering a real service to the community. The suppression of the real facts in this field, their emphatic denial by those who should and sometimes by those who do know them, and the prominence of these agencies where teachers congregate, suggest what is in some places a very seamy side of our system.

One superintendent[1] says, "I have never had a school committee, a majority of whose members could be relied upon to vote always for what they believed to be the interests of the schools, regardless of 'pulls.'" He adds that his large committee is managed by a few men who have made an offensive and defensive alliance. "The average committee man looks at all questions from this point of view, 'How will it affect me and my friends?' not, 'How will it affect the schools?'" One director is quoted as saying frankly that he was brought up in this town and intended to take care of his friends. Another superintendent says of his board, "There was a sprinkling of intelligent men, enough to constitute an efficient board; the rest of the members were men who could not speak grammatically, and some of them were known in the community as men of low morals, who were not fit to come in contact either with women teachers or with children in the schools." "It ought to be said that church influence is often more embarrassing to a superintendent than politics, and I have myself been hampered by deacons and pastors in my efforts to do the best thing for the schools." Some of the most objectionable men "were constantly found on the text-book committee, and agents of publishing houses had to meet them on ground sufficiently low to reach their official good will," etc.

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[1] Confessions of Three School Superintendents, Atlantic Monthly, 1898. Vol. 82, pp. 644–653.

Town supervision is almost universal in Europe, but here again the German organization of the *Kreis* or district is the most elaborate, if not the best. The crown, the city government, citizens, the established church, and the body of teachers—all appoint or elect. These boards are relatively small, ranging from five to perhaps twenty members, who usually serve for long terms and are represented by the paid inspectors on this board, who are professional and sometimes appointed by the Minister of Education for life. Although a high type of character and intelligence is found on these city boards, they differ from ours in that they can never touch the matter of appropriations or influence the courses, methods of instruction, or discipline, and cannot appoint teachers. Their work is mainly the determination of boundaries, the erection of buildings, to grant leave of absence and suggest substitutes, sometimes determining how the school tax shall be levied, but otherwise the school remains essentially free from even this local control. Their influence enters the work of the school only through the inspectors, who represent them. Of these organizations Berlin, for instance, has ten, each with its inspector; and in all, Prussia has nearly one thousand.

In addition to this and outside it, in some parts of Europe, each public school has a resident committee, known in Prussia, where the system is best developed, as a *Vorstand,* holding office for three years, sometimes elected by parents, sometimes by a city board, but often self-perpetuating. Often some of the best people are found here and take pride in making the one school, which they serve, the best possible; and yet these boards have no power over the teacher, course of study, or text-books, but look only after external matters like repairs, compelling attendance, and settling discords between teachers and parents. This system both implies and develops local interest in each school and enlists large numbers of the best citizens, is fruitful of suggestion, and in some places might be applied in this country to great advantage, where people of leisure, intelligence, and devotion could be found.

Next higher come the county boards, usually small, serving for long terms, more professional, with no salaries, but paid for actual service and traveling expenses. This organization has spread to other countries, largely from Prussia, which has thirty-six of these *Regierungen,* consisting of one president, two life members appointed by the King, and four others, two of whom are named every three years for a term of six years, making seven members in all, but each with an alternate. These boards have great power, chiefly with the lower *Volksschulen.* They regulate tuition fees, still very common in Europe for public schools, although very moderate and everywhere rapidly vanishing. They decide on text-books; make programs; inspect training schools and appoint their graduates to provisional places; examine and license them after their term of probation, and appoint inspectors. Their power usually extends not only over public, but private schools in their domain, and also over all literary institutions of whatever kind. Thus, the lower schools are chiefly controlled by these small, but select boards.

We often find a higher provincial school board with great power, especially over the higher schools. In Prussia there are thirteen of these *Collegia.* Their members are nominated by the Minister and appointed by the Kaiser, but they are often self-perpetuating. They determine courses of study and daily programs; nominate and promote teachers; fix their salaries; prescribe the plan or norm for new text-books, which cannot be printed till the Minister has approved; organize and control normal schools and all agencies for the further education of teachers in office; and work chiefly through provincial inspectors, the heart of the best continental supervision. These officers are like superintendents with great powers, including that of the appointment and transfer of teachers. Some specialize for the control of schools that fit for universities; others for high schools that fit for life; and yet others for the *Volksschule,* which satisfies the requirements of the law. These boards have powers rather more like those of the Regents of the State of New York than of our State boards. Their oversight extends to schools for defectives. They modify courses for farming, mining, or manufacturing communities and harmonize curricula.

Highest comes the Minister of Education, who is usually a member of the Royal Cabinet, and has a special official seat in the lower house of representatives. He appoints the provincial boards next below him; draws up bills for financial support and carries them through; proposes reforms and new laws; is the judge in a court of final appeal on all school litigations; sanctions and sometimes appoints without nomination heads of *Gymnasia, Realschulen,* and University professors; fixes the minimum course of study required by law; determines the variable amount of state aid; confers titles upon eminent teachers; and, of course, compels answers to all his statistical and other *questionnaires.*

France has gone much further than Germany in centralizing its school administration in Paris and in the Minister's Bureau, although for more than ten years it has striven to develop the almost paralyzed local control. In Germany, the effort is to give localities power in proportion to the degree of financial support, which they provide, the government prescribing most where it aids most. In Russia, while the control of a higher education is intensely contralized, great local freedom is given in the lower and especially rural schools, although in the less civilized regions, as among the wild tribes of the Caucasus, the government does nearly all. In Norway and Sweden, independent local control has gone farther than anywhere else on the Continent; while in Spain the clergy have almost supreme control, and in Italy, owing to the poverty of the government, still have great influence upon primary training.

Many cities here, and those the best, such as Springfield, New Haven, Minneapolis, Indianapolis, Cleveland, St. Paul, Toledo, Rochester, San Francisco, Washington, D. C., Kansas City, Bloomington, and Dayton have now boards of from three to nine members, seven being the most common number. I find that within a few years I have visited and inspected the schools in all these cities save two, and I can add my testimony to that which seemed to be universal in each place that this change had been attended with great improvement in the direction both of increased efficiency and of economy. The change in nearly every case was the result of a struggle, in some cases severe and protracted, in which business men, teachers, and parents were victorious over politicians and placeholders. The latter everywhere desire large boards and argue that they are more representative in a democracy. On the other hand, take four large cities in this country which have been notorious for proved corruption. One of them has a school board of forty members who are divided into twenty-seven committees; another has a board of seventy-two members; one has forty-five. The significance of this can be seen in the quality of the superintendents of the above cities, most of whom by a consensus of professional opinion would not be placed in the first class. The enormous difference between a good and a very good superintendent and the value of the silent changes he can make in the spirit and work of every schoolroom is not yet adequately appreciated by the public. This is not a matter of theory but of experience, which proves that large boards and many committees make conditions most favorable for both inefficiency and corruption. Jobbery, poor material, poor work, pulls, talk to the galleries, press, constituency, factions, endless friction with other branches of the city government, ceaseless complaints of leaky roofs, warping boards, bad ventilation, poor heating, sectional jealousies, and, in at least two cases lately proven in court, the sale of the office of teacher, show that large boards not only do not protect but sometimes invite abuses, and that where these occur responsibility is bandied about and can be fixed nowhere.

A small board has many advantages in itself, but this is not sufficient and in all the cities above named has been only one item of reform. Along with this should go, and I think in every case has gone, the method either of having a committee appointed by the mayor or else elected on a ticket at large. I know of no case where the mayor has not appointed good men. The plan lays a very heavy responsibility upon him personally and officially. Even if the obsolescent ward principle were maintained, most wards can furnish one man better qualified for such positions than it can three. But the city should not be deprived of the services of men of rare competence because of the accident of ward representation. Experience has shown that sections have been better represented and with less friction by few larger men than by larger numbers.

With these two changes belongs and generally goes a third, viz., a special executive officer to carry out the legislations of the board, who is held to a very fixed accountability, is often a builder, and has control of all repairs, and relieves both superintendent and committee of all the details of expenditure for everything pertaining to buildings and grounds. He is required to open everything above a small sum to public bids, and is authorized to make contracts and to expend most of the school money not devoted to salaries, books, and educational apparatus. The various rules to insure efficiency and honesty in this executive officer have been so effective that I have never been able to learn of but one case of attempted corruption and this was instantly detected and the officer removed.

Under this plan the superintendent is made personally responsible for the nomination, promotion, and discharge of teachers as well as, in general, for the selection of text-books. These two matters cause a large part of the friction and waste and dissipate much of the energy and time of the old-fashioned large board, but under the new scheme the professional character of the superintendent is recognized and he can confine himself to that work which he is best qualified to do. No school board, whether under the old or new plan, is competent to select the fittest among many candidates for the teacher's position, nor to select the best among the many text-books now pressed upon their attention by traveling agents of rival publishers, who swarm about the text-book committees whenever a change is contemplated, and who in some places have been convicted of corruption, and in others, subscribe to the expenses of election and have often had superintendents and principals at their mercy. All these measures really go together and it has often been a revelation to see what improvements they effect. The board conducts its affairs on strictly business principles. Its time is occupied with larger questions and not frittered away with petty ones. The change is always marked by a revival of popular interest in the school. Often pictures are given, yards beautified, anti-hygienic conditions removed, future educational needs of the city anticipated with economy and foresight, and this movement usually marks the beginning of a series of improvements, of increased care and watchful interest of the schools on the part of the public.

II. Another defect is *the lack of professional training* among teachers. Probably not forty per cent of all the teachers now in service have ever taken any courses in normal schools or had other professional training, and a still smaller per cent have taken complete courses, and in some States this proportion sinks to ten or eight per cent. This is closely bound up with the fact that our teachers, on the average, remain only four or five years in the exercise of their vocation, so that from a quarter to a sixth of the teachers who begin work each fall are new to the business. Thus we have a large body of raw recruits in our educational army each year who must be disciplined, trained, prodded along, and the worst of it is that very few indeed who enter the profession, especially women, who are increasing so rapidly, expect to make it a life work. Hence they do not appreciate the need of training for it, and hence, also, the temptation to provisional and make-shift methods. These facts lay heavy responsibilities upon superintendents, who have and exercise very great power and often prescribe to minute detail the work of each grade for each month, if not indeed of each week and perhaps even day. Our most elaborate prospectuses leave very little possibility of individual freedom to teachers, and, of course, a galley slave's work is not attractive to those of genuine originality and enthusiasm for teaching. Of course our normal schools are not all they might be, but the fact is not reassuring that there is so wide skepticism as to the scientific possibilities of pedagogy and that teaching is as yet so little of a profession among us. It is satisfactory to realize that this evil, like many of the others, is undergoing a slow process of amelioration, and as long as this is the case, even though progress is slow, we must not lose heart. We do not, however, begin to realize the enormous economies in education that would result from the high grade of efficiency that is obtained by teachers in some of the best foreign countries.

III. *The pay of the grade teacher,* while in some communities it is very respectable, averages wretchedly low—$62.35 per month for men, $51.61 for women. In many foreign countries where it is absolutely lower, it is really higher because of the cheaper cost of living. We lavish money upon school buildings, which are often almost palatial and not infrequently are the most costly buildings in town. Our system is splendidly housed. Here we lead the world, on the whole, despite the wretchedness of many school buildings still in some of the backward rural communities. We spend large sums, too, upon special teachers, the function of some of whom might with profit be suspended and that of others reduced. Our administrative policy generally is to overpay the leaders not absolutely but relatively to the salaries given to the rank and file. Pay is fixed by the board, and, of course, anyone can refuse it. It is not a sweating system, and yet far better wages are obtained in many other vocations, even those often regarded as menial, so that we practically trade upon the respectability of this calling and the social standing that members enjoy as compared with those of trained cooks and shopgirls. Again, we have made but very little progress in assuring teachers of their future, either as to permanency of tenure or of pension after long service. Thus the trade-union spirit that has crept into the profession within recent years is not without some justification and is very likely to spread. We have never yet had a downright comprehensive strike or boycott to compel our children to grow up in ignorance, and let us hope that this at least will not come. Again, we ought to pay teachers an increase in proportion to the merit of their work, rather than increasing the pay up the grades, because this tends to leave the poorest teachers in the lowest grades, where, at least in present conditions of our scheme, the best are needed. We can hardly expect that a profession which pays from three or four to six or seven hundred dollars a year and makes the requirements that superintendents now impose upon candidates for positions will be crowded.

Burk[1] thinks teachers do much to create dullness. They begin, he says, young, healthful, and enthusiastic, but gradually their shoulders, then the corners of the mouth, then of the eyes droop, their voices become hard, the accent lifeless, and slowly "their hearts are found to have rotted—dry rotted." They "acquire the spirit of a galley slave and the expression of an undertaker." Catholic teachers, as Shields points out,[2] teach for life and with a powerful religious motive, which public-school teachers lack, and this is one reason why the latter drop out in a few years. Those who remain in the city systems come to loathe their work and teach mechanically. Such a teacher reaches her school in the morning in nervous haste, having left her soul behind her out in the fields or in society, so that only her body goes on with the dull routine. The children are chilled and their souls also play truant. With good teachers, who are artisans and not hireling day laborers, of course all this is different. What, indeed, if the school has legislated against the entrance of the teacher's soul into the schoolroom! What if the real murderer be the superintendent with his passion for dictating the manner and matter of every item in the teacher's day's work, refusing her any voice in the organization of the school, selection of texts, shaping methods, sequence of lessons, reducing her, in short, to a factory hand, to a cog in a machine! Under these circumstances, how can the helpless teacher escape from being desiccated and mechanized? Our schools are too dominated by the one-man power and teachers have too little opportunity for self-expression, and thus it is that the rank and file of teachers has grown soulless. Pupils escape from the school, preferring labor rather than to have their souls ground out of them by school routine and be made lifeless manikins. Salaries, indeed, ought to be increased, but no pay can compensate for life thus crushed out.

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[1] See his sprightly article "The Withered Heart of the School," in the Educational Review for December, 1907.

[2] See Notes on Education, in the Catholic University Review for April 18, 1908.

P. H. Sercombe[1] finds "in Chicago alone thousands of parents who declare that their children are being taught nothing of value"; that no means are applied for developing the qualities of initiative and industry during the most impressionable years from eight to sixteen; that theory and book culture are taught to the exclusion of practice; that the reasoning powers are weakened and unbalanced, and "that leisure-class ideas are taught exclusively to children of foreign parents, thus adding them to our already large army of incompetents." The very system, he says, implants the idea of getting something for nothing, the desire to live upon the labors of others. We have blindly followed tradition until the scheme overthrows intelligence, blights initiative, and undermines natural growth.

Thus, of late, a great and widespread *dearth of teachers* has been reported in many parts of the country and thousands of children are on the street because scores of schoolhouses and rooms are closed. In 1907, New York City was 700 teachers short. After closing certain small ungraded classes and enlarging others already too large, the requirements for license were finally lowered, thus introducing the so-called bargain-counter method. In Chicago, for several years, rooms have been vacant in some forty buildings. January 14, 1907, over 3,000 children were sent home in that city because there were no teachers and 73 rooms were closed. Among rural schools, these conditions are much worse and requirements for teachers have been raised in many places and increased pay recommended.[2] This may partly be due to the fact that industrial opportunities for women are increasing, but the defection of teachers still goes on. The profession seems to be losing its attractions. In at least half a score of cities this growing discontent has taken the form of open revolt against the superintendents, the board, or both, and sometimes the legislature is appealed to for relief from conditions that are deemed intolerable. This revolt has taken organized form in the Teachers' Federation of Chicago and the Inter-

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[1] Evils of American School Systems. The Craftsman. Vol. 16, No. 6, Sept., 1909, pp. 603–611.

[2] The German *Volksschulen* were founded for children of from six to fourteen years of age to satisfy the requirements of the school law. They are usually held

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forty-two weeks in the year from the hours of eight to twelve, and two to four. The sexes are usually separated, sometimes in different ends of the same building. Pupils own their books and must take them all home every night. The head teacher and often others reside in the building. No ancient or modern language is taught. Religion is given much prominence and reading, writing, arithmetic, geography, history, music, science as related to daily life, gymnasium for the boys and sewing for the girls, are the staple subjects. The attendance is compulsory for all, and so effective are the truant officers that in Aachen, out of 94,471 pupils only seven failed to attend without sufficient excuse.

One third of the teachers of these popular schools in Germany come from the farm, and one third are the children of teachers. About eighty-eight per cent of them are men, as indeed all must be who preside over rural schools with but one teacher. All of them without exception have had a professional course of training, the average term of service in Prussia being about twenty-five years. 11,000 of these teachers in Prussia are paid less than $190 of our money a year, and 23,000 or one third of the whole less than $225. The average salary for men teachers in the city is about $360; for women $250, and less in the country. In Berlin, the male teacher begins with $300; in four years it is raised to $400; in eight years to $550; and so on until a maximum of $950 is reached after thirty-one years' service. After ten years' service comes a pension of one fourth the salary if withdrawal is obligatory, and one sixtieth is added each year for thirty years, so that at the end of forty years' service he may retire at the age of sixty-five with three fourths of his salary.

The training of these elementary teachers in Germany begins when they leave the *Volksschule* at fourteen, when they go for three years to a special school that prepares for the normal school, to which only promising children are admitted, but where they are given free tuition and a stipend of $30 or $40 a year. At seventeen they enter one of the normal schools of which Prussia has 111 for men and 11 for women. Here the number of pupils cannot exceed ninety, and there must be at least six teachers including the principal. The first year's work is purely academic; the second adds a little practice and assistant work; and in the third year, great stress is laid upon psychology, pedagogy, school law, and from six to ten hours' a week teaching is required for all of these institutions and a practice school attached. Much stress is laid on music and some work in one foreign language—French, English, or Latin—is required. The examinations on leaving these schools give a certificate for three years and the candidate must take any place assigned. Not less than two, or more than five, years after, a second examination is held in which pedagogy, psychology, and practical subjects are more prominent, and then, at the age of twenty-three or four, the teacher is ready to be assigned a permanent place. If one ever desires to be a principal or a teacher in a so-called middle school, another examination must be undergone.

The unique feature of European education in almost every land is the special institutions provided for the training of the better classes. At nine the German

Borough Teachers' Association of New York. Such facts show that women are beginning to regard the occupation of teaching as oppressive. One remedy suggested has been raising the age of admission or closing the first grade, receiving only children at seven. Many studies reported elsewhere show that those entering later catch up by the age of twelve, so that the first year is practically useless.

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boy enters the *Realschule* or *Gymnasium*, which leads up to the university or technical school in nine years, paying about $25 a year tuition; at ten or eleven, the French boy enters the *lycée*, in which he lives at a cost of from $80 to $200 a year; and at the same age the English boy enters one of the so-called public schools, at a cost of nearly $1,000 a year with board. Thus five or six years earlier than the American boy enters the high school, the European boy, who is going on to higher schools or whose parents have means, is separated from the mass of pupils in the popular schools and receives far more effective training. This early bifurcation of the classes from the masses, although undemocratic and made by reason of the parents' wealth rather than by superior ability, means that the parent makes the first great choice of a learned or an unlearned career for his child. In these institutions, especially in Germany, the boy from nine on comes in contact only with male teachers who have graduated at the University. About half of the teachers in the *Gymnasium* and *Realschule* have taken the degree of doctor of philosophy, but all, without exception, have passed the yet harder and higher state examination. The training of these teachers is as follows. Graduating from the *Realschule* or *Gymnasium* at the age of eighteen or nineteen, they spend four years at the university, which takes them a year or two beyond the American college course. During these years they must have specialized on two major and two minor subjects, favorably related, as e. g., the language-history group of science-mathematics group. If a candidate cannot afford the doctorate, which costs perhaps $150, but prefers the examination of the state, he is given a series of essays with from six to twelve weeks to prepare each. These must cover not only the four subjects he intends to teach, but pedagogy and philosophy; and, lastly, comes the oral part of the examination. If he succeeds, he has a certificate of fitness *facultas docendi*, which is of three grades. The first makes him eligible later for a head teacher, with the title of professor, and is a license to teach two subjects in all classes and two in the lower six classes of the *Gymnasium* or *Realschule;* if of the second class, he can teach three subjects during the first six years and one to the end of a nine years' course. Now he is assigned to one of the twelve seminaries, devoted to some special subjects, or takes the one year's course in one of the three seminaries connected with secondary schools, where he receives a small stipend. Then comes the trial year without pay, and now at the age of twenty-seven or eight he can be given an appointment, although he has to wait on the average three or four years for it. When definitely assigned to his post, he receives at first between $600 and $700 a year, and is slowly advanced in salary until, if he reach the very highest post at the head of a great city *Gymnasium*, his pay after fifteen years of service reaches its maximum of $1,800, with about $300 worth of rent, fuel, and light added.

With almost every year of advance after the third or fourth, the pupil is lured on by the prospect of privileges. If he reaches *Ober-Tertia*, he may become paymaster in the navy. If he stays six years, he is exempt from one of the years of military

IV. *Feminization of the Teaching Profession.*—In the public schools of all grades in the United States only twenty-three per cent of all the teachers are males. In several States there are less than ten per cent, but this proportion is decreasing. If we eliminate the high school, where the proportion of male teachers is larger, and also the principals of the grammar schools—mostly men—the personnel of the army is essentially feminine. Thus, the grade teaching of children from six to fourteen is now done in this country by women, and nearly all boys and girls who only satisfy the requirements of the law in the matter of attendance never come under the influence of a male teacher. Occasionally a boy who graduates from the high school has his first man teacher in college. This corps of women is therefore the main bulwark of our republic of citizen voters against the evils of ignorance. They are paid a wretched average wage of about $51.61 a month, which sinks often to less than $30. All intelligent women deplore this state of things, for as the home needs both the father and the mother, so both men and women are needed for the upbringing of the child. Some, however, think the woman's influence may predominate in the kindergarten and the lower grades or with girls, and that man's influence should predominate with older children, and especially with boys, who certainly as they approach puberty need for their normal development the influence of men. A few generations ago, when men predominated, discipline was often severe and authority was enforced by physical strength. Floggings, perhaps, were sometimes too frequent and excessive, but where it did not come to this, the male teacher commanded and was obeyed, because the boys knew he could use force if necessary.

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service required from all able-bodied men; may enter the schools of agriculture, the academies of art, the railway service, horticultural institute; may become a druggist. If he goes on another year, he may take the examination for state surveyor, dentistry, or veterinary medicine, become an ensign, midshipman, army paymaster, or farrier. If he goes within one year of graduation, he finds admission to the customs; may be a marine superintendent or secretary of wharves. And if he becomes an *Ober-Primaner*, he can become a ship builder or engineer; enter the postal or telegraph service; become a mining or mechanical engineer or forester, is on the way to a teacher's certificate, or if he is in the *Gymnasium* to the study of medicine, law, or theology. And thus he is drawn and lured on by his own or his parents' ambition, by the choicest prizes of office in the government as well as in high social prestige.

Hence, there was at least a kind of physical respect. Now, under the woman's régime, the rod is banished by sentiment and commonly by law and cannot be resorted to even in emergencies, for the method of moral suasion, love—or at the worst a system of marks and petty penalties—is taking the place of drubbings, and devoted teachers often wear themselves out in coaxing, rewarding, or coquetting with parents to keep bad boys decent, when a single dose of Dr. Spankster's tonic would do the business with celerity and dispatch, for in the moral world there are still situations in which the rod is a magic wand which can work miracles. Women generally will not flog, and a big, bad boy knows that if they tried they would not be formidable at the job. Indeed, in the home, as I have elsewhere pointed out, the father is rarely invoked or intervenes, so that in the school and home a growing proportion of the rising generation are half-orphaned. There are boys just entering the hobbledehoy stage of life who need occasional thrashings as much as they need exposure and exercise and who are spoiled if the rod is spared. Fear has always been one of the world's sovereign masters, and the violation of law, human or divine, has been punished. The danger of penalty is a great mind wakener, brings foresight, alertness, memory. The boy is in the stage of the world where fear ruled and law was invoked, and a régime of sugary benignity is dangerous. It would not be ladylike to knock a man down to prevent him from falling over a precipice or to break a crooked leg in order to get it straight, yet both may be blessings in disguise in the plastic stage of character. Another type of boy actually becomes neurotic if he is too early burdened with the sole responsibility for his own conduct, and is relieved from nervous strain if he is coerced by an authoritative will that he reveres. In the great English public schools boys are often caned and rattaned, and in one school the boys deliberately voted against the abolition of corporal punishment, because it seemed to them a manly British thing to do to walk up and take a good dose of the oil of birch, without whimpering, from the master. Besides this *olim juvabit meninisse*, as soldiers are proud to recall and tell the story of their scars. Many a pampered weakling scion of a rich and perhaps noble family in Albion has thus been waked up mentally and morally by judicious castigation by an artist in the business who knew just when and how much to do. May we never have an era of indiscriminate or excessive flogging, but we have no less reason to pray against the reign of mawkish hysterical sentimentality that faints at a well-timed slap or spank. Our former strenuous President advocated flogging for wife beaters. This is well, only it comes too late, for a milder one earlier would have been economic, as an ounce of prevention is worth more than a ton of cure. Let us at least keep men enough in the schools so that the venerable injunction of Solomon shall not lapse to innocuous desuetude and that the rod shall not be like a sword so rusted in its scabbard that it cannot be drawn out when the country needs it.

And it does so now. I believe that the progressive feralization of boys, the growing hoodlumism, etc., which all admit and complain of, is directly connected with the feminization chiefly of the school, but also of the home. I long kept clippings of these outbreaks. Lately, a gang of rowdy boys in the teens in a town in the Mississippi Valley defied the police and terrorized the town for three days. There were holdups, lootings, and a few shootings. In another city, for weeks, outrages were committed every night before it was found that they were done by boys in the early teens. In another place such boys had a club in an old cellar where all sorts of plunder was collected, the leader being a lad of seventeen. In three schools on my list boys conspired to boycott unpopular teachers, one of them a principal, who insisted on order and, worst of all, on an amount of study that these young barbarians thought excessive. In another city, roaming squads of young toughs came from nobody knows where in broad daylight, drove off children and carried off fruit and garden truck in hampers, scattering and rallying together by a code of signals as the police appeared and vanished. One spokesman for a gang declared that people who went off to summer homes ought to give everything in their gardens to those who needed them, as they had no business to have two homes. I believe no mother can be equally helpful for all stages of her boy's life. Some are best in the nursing stage, some in the later prepubescent years, and a few remarkable teachers and mothers have developed wonderful power to deal with boys in the callow fledgling state of the early teens, when the metal is too crude and fresh from the mine to take polish without injuring its temper. Nature is giving the raw material of virile manhood at this stage, and form will come later. Youth must thus have its fling not in the form of vice or riotous excess, but the conventionalities that women love, need to be broken through, many of them, by boys at this stage when, as Aristotle said, there is no creature quite so wild or so spiritually drunk. So we cannot expect too much sobriety, and yet the human cub must feel some restraint, for he is only a candidate for manhood, and emancipation may bring a precocious maturity that causes arrest. Principals of private boys' boarding schools have written me, in answer to a circular letter, that nowadays it is the mother or aunt they chiefly deal with at home. She places the boy in the school, and if there is trouble she is at once on the spot, and that this makes a great difference in the tone and discipline of the school. Again, the boy just approaching manhood, and often just before the teens, has an instinctive feeling of insubordination against the woman's rule. In proportion as he feels his own manhood, he wishes to be independent and not to be dominated by any member of the other sex, even his mother. Indeed, as the Freudians have shown, there are sometimes subtle sex dangers that lurk if this instinct is thwarted. Thus many boys, as the springtime of manhood comes, become restless under women teachers, and without knowing what is the matter with them find the attractions of school fading and those of the outer world increasing. While I know no statistics that could be cited in proof of the assertion, I am persuaded that the falling out of boys in the upper grammar grades would be far less if there were more male teachers. Of course this is largely a matter of pay. Higher salaries would bring back a larger proportion of male teachers. And finally, a great deal might be added, were there space, upon the desirability of subjecting budding girlhood to wholesome masculine influence. The *tendron*, in a very different way and degree from the boy, needs to have her womanhood fully polarized, to feel occasionally and betimes man's influence, which does an important function for her, as the influence of good women does in the lives of budding boys.

V. *Coeducation.*—I am convinced that the real interests of boys and girls of the high school, and perhaps even the later grammar and possibly collegiate, stages of work require the adoption of a new policy of gradual and progressive segregation. I do not advocate any revolutionary steps, but the time has come when I believe all sagacious students of the nature and needs of young people agree that, in the best interests of both sexes, the natural tendency of boys and girls to draw away from each other, even in the home and on the street, must be recognized. Each sex, at the very dawn of the teens or before, is unfolding tastes, interests, plays, games, and ambitions of its own. How different the lives of the sexes in boarding schools for either sex, only those who have studied both can know, and how the boy loathes a mate who prefers the companionship of girls to his own! This natural segregation has pervaded every stage of history and every form of society, from savagery up, and has an immense momentum of heredity behind it. It is not merely custom and tradition, as feminists are wont to assume, but the authoritative voice of Nature herself that dictates this divergence. Let us look at the matter a little closer. In the neuter period during the first decade and more of life, boys and girls have little consciousness of sex and very many of their occupations and zests are the same, and the stature and proportions of their bodies differ but little. As civilization advances, divergence in all these respects increases. Again, as everyone knows, the stage of immaturity is prolonged as we go up the scale of animal life; the elephant passes perhaps one eighth of his entire life in growing; the horse, one half; the giraffe, one twelfth; but man now requires about one third of his total average life to become mature. So, as we proceed from barbaric to civilized man, the stage of adolescence or the childhood of man's higher nature has been lengthened and wedlock comes later. Child marriage is abandoned for the most part, save in India, where it is thought to be the cause of the ease with which vast multitudes succumb to pestilence and famine, as well as of the inertia that passively resists progress and makes 300,000,000 submit supinely to the rule of 65,000 English soldiers in red and 1,500 officials in black. The true age of nubility now, as measured by the viability and vigor of offspring, does not begin before the end of the teens in girls and some years later in young men. The years preceding this are therefore a very critical period, during which in modern man a new and higher story is being built upon the basis of the older foundation of humanity. It is critical, because while most children grow in body and soul up to puberty even under adverse conditions, the adolescent increment may far more easily be arrested by strain, ill health, vice, or many other causes, and such arrests are less likely than those that occur earlier in life to be made up later. Hence it is here that in very many, if not most, the nisus of heredity which suffices to bring children up to puberty often flags during the teens. Where this deficiency is marked we have precocious dementia, the cases of which, some now think, constitute one fourth of the inmates of our asylums for the mentally defective. So sensitive is the organism now to all factors of the environment that very many, and some think all, of us are more or less arrested and live out our lives on a lower level than we might have attained had all our surroundings during the second decade of life been only favorable. Now it is that the higher human qualities by which man differs most from animals are attained. Indeed, if man as we know him is ever to be superseded by a superman higher up the scale than we, it will be by still further differentiation, prolonging adolescence and utilizing to the uttermost all the rich dotations which nature gives at this golden and apical age.

Thus we see why savage men and women differ so much less from each other than do civilized men and women in bodily dimensions, modes of life, interests, etc. The civilized mother has larger hips, and should have, for due proportions, an ampler bust, gives far more of her time and energy to gestation and lactation; while man has more beard, a more virile voice, and should have, and many recent physical tests show often does have, more strength and more endurance than the savage. It is because sex differentiation and dimorphism has developed further and had more time in which to do so because of the prolongation of adolescence. That these differentiations are so often incomplete is due to the fact of hereditary defect or individual arrest, urban life, abnormal conditions of exercise or labor, sin, etc. Differentiation ought to be pushed to the very uttermost and everything should be welcomed that makes men more manly and women more womanly, while, on the other hand, all that makes for identity is degenerative. Here abnormal living and unhygienic surroundings and regimen work their most deleterious effects, but the intentions of nature are clear, even though they are imperfectly executed. Man has essayed to scale a greater altitude than the majority have been able to attain. Thus the historic stage of human life is one of aspiration and idealization, on the one hand, and of failure and disappointment on the other, a contrast which religion emphasizes as holiness versus sin, while heredity, the most ancient and precious form of wealth and worth, has its ups and downs. Men, women, and races of great talent and fecundity spring up suddenly and from humble origins, while great nations and families are plowed under, all because, long as is the period of history, it is only transitional from a vastly longer, lower, and possibly pygmoid level to a higher one yet to be securely and generally attained. Historic man, therefore, is engaged in building up a new and higher story to humanity upon vastly older foundations, but which will be complete only when adolescence has done its perfect work and has a motivation as strong and sure as that which constitutes the nisus of growth in childhood. When sex and all its secondary qualities are completely evolved and men and women are finished and established on the new plane of higher equilibrium, each will have rounded out a sphere of life which fits the nature of each, but is yet more diverse. This is not speculation, but a homely though fragmentary statement of the burden of modern genetic psychology.

Now, benign Mother Nature has also provided many aids in achieving this higher evolution, one of which is by implanting the instinct of pure homosexual friendships. The expressions of this we see all the way from the boy gang up to the classical ideals of friendship as laid down by Aristotle and Cicero, which have been crowded too much into the background in recent centuries by the extravagant development of the sentiment of romantic love with all its calentures in life and literature. Boys find enough feminine traits to like in other boys older and younger, and also in the teens they begin to thrill with admiration of noble men. It is one chief trait of this period that instead of being interested solely in each other, they are now attracted toward the best and most successful careers and characters of adults. This constitutes one of the opportunities of fathers, and indeed all men with fatherhood in their soul can utilize this hero worship of boys and do just as did the Greeks in the days of Socrates. Both these loves of mates and of elders at their best are chaste, stimulating, normal, and needed. Primitive man initiates the boy into life at this stage, explains tribal secrets, symbols, and totems, and sets him examples of man's work, spirit, and life in general. The boy is also loyal to his mates, becomes subordinate and serviceable to them, and thus early helps himself surely and safely on and up to the excelsior steppes of adolescence toward full-grown manhood. If he is outwardly rough toward his companions, he is really at heart tender and finds enough in them on which he can vent his callow love for a season. While his nature is thus in the gristle, girls are somewhat too delicate for full and hearty comradeship and should be a little afar and ideal. Too constant or intimate association with them, and, still more, love before its time, diverts the youth from his proper business of developing the fullness of his manhood. There must be acquaintance and occasional but not too frequent association, for there is an intersexual tension most helpful in developing due polarity. But familiarity as it exists in many coeducational high schools and colleges tones this down toward indifference, and this means loss or retrogression. Diversion to and by every kind of physical activity and intellectual interest till the maximum growth of stature and strength is attained is the principle that makes for further racial development.

So, too, girls must pass through a probational period more or less apart and by themselves, for they need to serve a no less real, if somewhat less prolonged, novitiate to life. It is hard indeed for girls in the daily presence and companionship of boys to relax sufficiently for health at stated periods when nature is establishing the lunar rhythm upon the normality of which her future welfare depends and to the interests of which everything else should for a time be secondary. With her own sex she need not be tense, but only natural, and if they know, they fully understand and sympathize; but surrounded by boy classmates she must give no sign, whatever effort self-control may cost. Again, quite apart from "mashes and crushes," girls are never so charming to each other as in the teens. All find leaders and those they can lead, and they grow wise in the way for which women have such a genius by pooling their experiences and profiting to the uttermost by those of others, second-hand though they be. For a few years nothing is quite so fascinating as just being together. Girls idealize favorite teachers and lavish affection upon the masculine traits they find about them in those of their own sex, and thus are advancing, though unconsciously, in the foreschool of love. They, too, are wholesomely toned and tempered by occasional meetings with young men and do not become disenchanted with the other sex, as often occurs if they are too incessantly present. Thus best girls round out their apprenticeship to life. Sentiment is enriched and normalized, the mind informed, character matured, physical and psychic health and the altruism needful later for wifehood and motherhood ripen apace till the age of nubility comes, for some sooner, for some later.

There is one important difference between the companionship of the sexes. In all the past of the race women have never been so gregarious as men. They have been more isolated in the home and their associations more limited to their immediate neighborhood and to their children, while, from savagery up, men tend to mass themselves into larger groups for hunting, war, various rites, politics, and other occupations. Emerging from this immemorial relative seclusion and from the home where acquaintanceship has been limited, when the girl enters college, e. g., with its wide range of daily associations, she finds herself in a situation not only personally but phyletically new to her sex. Hence, I think, she is more liable to be unduly excited by her surroundings. There are so many people to know at once and so much to hear and keep tab on. Thus, having been accustomed to a smaller chosen circle of intimates, she may now become a trifle dazed, nervous, and overwrought by the very multiplicity of new personalities and events that are humming about her. Woman is wont to know her own topographical environment better than man his and to know and care less for things remote, abstract, or that are unknown to others. But all these aggregate into what she now knows is in her own immediate sphere, and she feels that it needs to be known, for it is harder for her than for boys to ignore things right about her and fix her attention upon a few people or topics and ignore all others.

Another fact has growing weight upon my mind. Girls are more mature than boys at the same age. In many, if not most, formal studies they excel. Their interests in all that pertains to the other sex are riper. The boy in their presence in classroom and in social functions is cruder and often feels at a disadvantage. He can assert his instinct of the superiority of his sex on the athletic field and, if it comes to that, in the licensed barbarities tolerated in high-school and college youth. These are perhaps the only resources left him to express the deep, old instinct to do something distinctive to show off before the female, for intellectual superiority he cannot claim, since he is often surpassed in this field by his girl competitors. He feels deeply, though perhaps all unconsciously, that he is not a very admirable being to his girl classmates, is a little conscious, and so becomes slowly a little thwarted and possibly disenchanted, although he could be a hero to younger girls. The girl, also, is a trifle disillusioned. She could admire and perhaps adore men, but these unripe boys do not fulfill her ideals of the other sex. Thus there is on both sides a little abatement of the general tonic effects which each sex should exert upon the other. The daily comradery of the recitation and other intersexual intellectual associations rub off a little of the bloom and charm which each sex normally feels for the other, and there is some sagging of attitude, perhaps even of dress, due to familiarity. Thus wedlock between classmates of equal age is infrequent, and where it occurs is not quite on the ideal basis which nature suggests. Happy although such unions sometimes are, the man is a trifle subdued and perhaps a little too tame. His propensity to protect and shelter is not needed in such partnerships, while the woman is not sufficiently inspired, but feels responsibilities the man should relieve her of. She may feel impelled to tax herself to keep pace with her husband's affairs as well as to attend to her maternal duties. She is perhaps somewhat too mature to do her proper share of adaptation because she should be younger and the man older if all the functions of married life are to be performed ideally to the end. Each needs to feel to the uttermost all its own superiority over the other, to make the most of its own resources, to initiate the other into its own life and yet reserve much that is peculiar to itself. It is these normal virtuous reservations that coeducation interferes with by favoring an element of rivalry and competition which should not enter the wedded state.

Again, girls excel in formal studies where each learns the same things. Again and again new pedagogic departures have been inaugurated that emphasized the motor, and especially the industrial, needs of the boy, only to lapse back to formal academic routine. Sloyd was practical, to make things actually needed and used, and was devised as semivocational for boys, but it has become hypermethodic and feminine. Manual training was introduced to meet, directly or indirectly, the industrial needs of boys, but it strangely tends to become merely cultural. In one such high school only, less than 100 out of between 2,000 and 3,000 after graduation were reported as using any of the training they had acquired there in any remunerative way, partly because girls and feminine methods have given character to the course. Even elementary agricultural education is now somewhat jeopardized by feminization. Latin, perhaps the most formal of high-school subjects, is increasingly a girl's subject, and the same is true to some extent of algebra, and these two are the leading secondary topics, both of little intrinsic use or even interest to girls, save in teaching, and both are now taught and learned in the same feeble superficial way, to the neglect of the many more useful and interesting things to girls.

Finally (for within these limits only a few points in this vast field can be glanced at), we would take no backward step in the great movement of emancipation and the higher education of women, but insist with the utmost urgency that this movement has only just begun and that it will be calamitous if we rest complacent with what has already been achieved. The victories of the past have been on the basis of identical education, and the far harder task of differentiation is now opening before us. Although there is no sex in science, there is in minds, and the man's way and interests and the woman's way and interests even in mathematics are different. In coeducational colleges, and to some extent in the high schools, girls crowd courses that men neglect, and after schooling is over they throng lecture courses that men care not for. Religion is always vital for women and they are the chief readers of a large class of literature, the principal patrons of art, have their own journals, and now their own growing departments even in the daily press. They throng weddings, socials, and teas, as men love their clubs, their secret fraternities, and initiations. The sexes excel each in occupations of their own and the sphere of each (to insist on the till lately almost tabooed word) was never so differentiated as to-day. Education must recognize this and evolve its curricula to fit the diversity of nature and needs.

VI. I think the time has come when we must now consider whether the *paternalism* of our schools is not another defect. In many parts of Europe it is thought to be a good thing for children to bring their weekly or monthly pence, instead of raising all the school money from taxation. This is said to be good for the parents in that it makes them realize that they are getting something which is of value and that there really is some obligation on their part and that they are indebted to the school. Here, however, the public schools are entirely free, and even the State universities are nearly so, which gives them a tremendous advantage over the old endowed Eastern institutions that charge one or two hundred dollars' tuition. The thought of taxing college property, which is becoming a grave menace and a handicap in the East, so far as the State universities are concerned, would be absurd not only for the buildings and professors' houses, but for even income-bearing funds. Our public schools are entirely free and often palatial. The State or community provides free text-books and in rural communities, transportation for the children in public conveyances, although in some countries, like Norway, a considerable per cent of the children walk over two miles each way daily, bad though the climate is. We often, too, provide free lunches, baths, medical inspection, treatment in dispensaries. Some schools have visiting nurses, occasionally clothing is provided for those unable to purchase it. In some places, too, portable schoolhouses are moved about every few weeks, that the children may not walk too far or the parents be troubled with carrying them. One socialistic writer has seriously proposed a law that wherever school children could earn money, whether they do so or not, if the parents need their wages, the State should pay the parents for the child's time when at school. In another State a bill has been drawn and presented to the legislature, though not yet passed, appropriating $17,000,000 to carry every boy who wishes through the State university and every girl through the normal school without expense. The eugenicists in several European countries, in view of the declining rate of population, have proposed a bonus for all babies, to be paid to all parents of good physical and moral stamina whose marriage was medically approved, and even state incubators have been suggested. Has this tended to make children or parents appreciate the school, and how far must this paternalism go? Must we wheedle, coax, and offer chromos for school attendance, and apologize or atone to the parent for insisting that a child must be forced to read and write? Under democratic institutions it is doubtless necessary to make the school attractive by every legitimate means, because the agencies of coercion are very hard and expensive.

VII. *Long Vacations.*—In the last Bureau of Education report the estimated number of children of school age, i. e., from five to eighteen, in this country was 24,613,763. The number of pupils enrolled (1907–8) was 17,061,962, being 69.32 per cent of the estimated school population, leaving 7,551,801 not even enrolled. The average daily attendance for the same year was 12,154,172, or 71.24 per cent of the enrolment. This means that considerably more than one third of those enrolled are absent every day and those in attendance average less than half of the school population. This is despite all our laws of compulsory attendance and our truant-catching apparatus. Thus the American school not only keeps less than half the week days, but is attended by less than half the pupils who ought to go. Should we thus be justified in calling it a quarter-time system? In representative German cities school often keeps forty-six and sometimes forty-eight weeks out of the fifty-two. We have lately had great emphasis laid upon the more businesslike management of our colleges, and this is well, for a business conducted as loosely as the public-school system would be doomed to speedy failure. It is said that teachers are overworked and need the time for rest, and we must admit that teaching as conducted in America is often a grind. But are the American teachers weaker than those in Germany? Do they work as hard during school hours or spend as much time in the work needful outside of school as the German teachers? Even if it were a case of a conflict of interests, hygienic, moral, or otherwise, between the teachers and the pupils, which should dominate the other? During the long vacation of from two and a half to four months or more, children's "forgettery" of their school work is in very active operation demolishing their acquirements, so that their progress is not unlike that of the fabled frog getting out of the well who climbed up three feet each day and fell back one or two each night. Every fall the children must be reacclimated and readjusted to school. In some places it has been said that the beginning and end of the school year are, in part, influenced by the convenience of parents who are away in summer or of those who find the children more troublesome in cold weather, when they must spend more time indoors than in warm weather. We cannot estimate, of course, the actual force of this day-nursery motive of having children cared for, or tell how much of this really underlies what we think to be the parents' love of education for their offspring.

VIII. *Small Attendance and Illiteracy.*—As to the age of compulsory school attendance, it appears[1] that, in 1907, thirteen States and territories had no compulsory law and that among those that have it, it begins to operate at eight in twenty-three States, but averages seven and three tenth years, and ends on the average at fourteen and nine tenth years. Admission, however, is usually permissible from six to eighteen or even twenty-one. Thus the obligatory years are chiefly before puberty, and soon after its dawn the child is free to go or not. This approximately is a world-wide custom. These years represent what is usually regarded as the age of drill and discipline, rather than of freedom. Children, moreover, are of little use in industries or even in the home, and parents are glad to be relieved of their care. Moreover, they are more controllable and, on the average, more amenable to the women teachers, who can be obtained at cheaper rates than men. Thus our system to a great extent is still a voluntary one and is free not only of cost, but in the sense that education may be taken or not. This is connected with illiteracy, which, according to the latest available statistics, is 4.9 per cent of the native whites, 11.5 per cent of the foreign whites, and 47.4 of the negroes, as against a fraction of 1 per cent in lands like Prussia and Norway. In the earlier days of the world many of its great leaders never acquired what was sometimes contemptuously spoken of as the "clerk's trick" of reading and writing and ciphering came in far later yet. Some one has made what purports to be a naïve defense of this ignorance in that those who could not read were saved from very much waste of time in a very unhygienic and monotonous process of perusing tons of printed matter spread abroad daily and on sale in every railroad station and corner store, that their morals were safeguarded from certain temptations, and that in not knowing the art of calculation they did not have to worry over the daily balance of income and expenditure. Still, the five or six grades of schooling, which is all the average American citizen gets, are by general consent, especially in a land ruled by the suffrage of those of average intelligence as ours is, on the whole a most desirable thing. If ignorance cost immediate pain, as hunger and cold do, things would be better. Every kind of trivial excuse is made for nonattendance, and thus we have seven illiterate voters even out of every hundred among the whites, despite our army of over 400,000 teachers and our annual budget of over $300,000,000, which makes our educational machine the largest the world has ever seen.

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[1] N. Y. Ed. Dept. Bull., July, 1907.

IX. *The mixed and roving character of our people* makes good schooling hard. New waves of humanity are constantly breaking on our shores. There are something like a million newcomers here each year. But for this supply what would become of our increase of population, our industries, etc.? Once immigrants were Celtic, Teutonic, and from the north of Europe; now they are from the south and east, Italians, Armenians, Russians, Finns, and even Orientals, despite the checks put upon the yellow peril. More and more of these fresh arrivals speak a tongue remote from our own, and the most the school can do is to teach them a little English and induct them into our ways of living and thinking. All must be smelted in one crucible. Sometimes we find a dozen nationalities and tongues in one school, or even class, at least in New York, where so many foreigners are dumped. Again, having immigrated here, they continue to wander, and the traditions of their migratory, nomad life are very strong in all classes of our population. Somewhere else, they feel, is a better opportunity. And the opportunities of transportation are so great and alluring, to say nothing of active measures to promote travel by steamship agencies abroad to bring people here, and by reduced fares, prospectuses, etc., that Americans maintain their old roving propensity. A recent writer tells us of a fifteen-year-old girl who since the age of six had had twenty-three different teachers in at least half as many different towns. Often there is a remarkable percentage of new faces each year and even term in our schoolrooms. The above writer also tells of a house in the middle West which in sixteen years had been inhabited by no less than thirty-seven different families. Each such change means educational loss. Truancy and other laws are easily evaded where humanity swirls, and education on the fly is sure to be superficial with these peek-a-boo pupils. Theirs is a lunch-counter diet compared with the stated and stately table d'hôte course.

X. As to *grading and promotion*, we are now coming to understand how grievous are the defects of our system, and in some parts of the country there are various schemes of amelioration.[1] By the old way down to La Salle, which indeed lingered on in many places till well into the last century, each pupil was called to the desk to recite and the rest heard or studied. This way was at one time universal, and in Teutonic lands was largely ended by Pestalozzi and in England by the monitorial system. In this country, in the days of Horace Mann and Barnard's *Journal*, gradation became supreme, and we find extremely little said of the needs of the individual. The eight one-year units, or grades, ending at fourteen presuppose uniform children, identical gifts, needs, rate of mental growth, destination, etc., and so standardization has been a veritable fetich. We block off knowledge into so many weeks, years, hours, experiments, topics, pages, and rate standing on a scale perhaps of 100 carried to decimals, and until quite lately some indulged in pipe dreams of a day when every child of the same grade everywhere will be doing the same thing in the same way in the grades, and every high school will exactly conform to one of a few set patterns, every degree stand for the same thing, every kind of ability be calibrated to scale, and culture dealt out in quantified packages like goods by tables of weights and measures, or like electricity in ohms, so that all can be tabulated. What becomes of individuality under such a system? Our children act, feel, think, learn in platoons. Our methods are mass methods, and unless a child happens to be defective he has little personal care, while if he is so, in our best institutions he is now carefully investigated and his education personally conducted and carefully fitted to his needs and powers. Under this system the gifted child is the chief sufferer. He must keep step with the average, and regimentation and regulation prescribe even his rate of progress. His originality and personal gifts are the most precious thing in the world for him and for society, and on them his success and his social worth depend. But we have no apparatus for detecting and still less for developing his proprium and he is not kept doing his best thing, and thus the most precious of human material is wasted. Only rare genius and talent can break away from our rigid system and follow interest, which is the muse of individual evolution, and be true to the forte which lies somewhere in each. Every adjustment to the needs and rights of the individual is therefore an amelioration now greatly needed. Ayres, Bryan, Gorman, Thorndike, and others have shown how few pass normally through the grades, one step each year, and how many laggards, retarded, demoted, and eliminated, there are who are slowly coming to their rights.

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[1] See an excellent survey of this topic in the Brooklyn Teachers' Association Report of the President, 1909–10, pp. 35–123.

Physiological and psychological are being distinguished from chronological age by Crampton, and constant standards of age, even for admission to school, are now being challenged. Some hold that seven or eight is early enough for the average child to enter school. Arithmetic is probably the chief source of offense, and stress on it should certainly be delayed and efficiency in it alone should not retard. Some advise no test in this subject before the third school year. A promotional examination that may compel the pupil to repeat a whole year for deficiency in one or two subjects, although widely in vogue, is a crime against children, for it brands some with the mark of failure unjustly. To escape these defects, the course must be such that the normal average child can surely advance a grade a year and feel the stimulus of success. Despite the thirty years' war against it, a year interval between promotions still prevails. Half-year intervals mean two classes in a room or study and may bring distraction, though the late William T. Harris urged that this is a good discipline for attention. The term interval has its defects. In St. Louis, in the early seventies, pupils might be promoted every few weeks by reclassification, and, thus, it was claimed bright pupils would not acquire listless, low-pressure habits of work. Under this scheme, the few best were promoted rather than the worst demoted. This elasticity, too, tended to fill up the constantly depleted upper grades. Again, Shearer's plan at Elizabeth, N. J., divides the eight grades into three or four sections, each progressing as fast as it is able, and pupils are constantly transferred from one section to another, according to the teacher's judgment, without examination. Each is thus kept where he can work to best advantage. The classes are more numerous, but smaller.[1] This prompts teachers to work more for the best pupils. The Santa Barbara plan has three sections in each grade; the *C*, or lowest group, works only on fundamentals, while the *A*, or best group, does the same work only in a more thorough, detailed, and systematic way. An *A* pupil in one grade may easily jump to the *C* group in the next higher group. "The normal child of one year is not the normal child of another year." The Cambridge double-track plan applies only to the last six years of a nine-year course. The bright pupil can thus reach the goal two years before the slow division. This method favors an accumulation of laggards, while the bright ones who might spur them on by emulation and example are eliminated. In the La Mars, Iowa, plan, there are two parallel courses of six and nine years respectively, which articulate at points most favorable in transferring. The short course has three two-year cycles, the long one three three-year courses. The maximal interval between classes is twelve weeks, but for most of the time it is only four to eight weeks. On the Portland, Ore., scheme, the entire course is divided into fifty-four parts with eighteen terms of five months each, three terms' work making a cycle. The standard rate is three parts a term for the slow, and four for the fast division. New York City works two kinds of groups, constant and shifting, the former of which have a definite period with promotions only at stated intervals. The shifting groups may be as many and in as many topics as the teacher desires and promotion may be made any day. This, too, avoids marking time. The latter need not recite a lesson the second time, as the little group may, but can study intensively at their seats. The *C* group may recite even a third time. Seat study is a hard point to manage under this plan. In Germany, where gradation has hitherto been very strict, the Charlottenburg plan and that of Dr. Sickinger at Mannheim have special or " forthcoming " classes in which slow pupils have special attention. But half of them work their way into the regular classes, such is their lack of interest and capacity, although it is open to all to do so. The very dullest here are transplanted to the auxiliary classes. About ten per cent of all are thus segregated. The critics of this scheme think the evil best obviated by simplifying the regular courses, so that nearly all can take them successfully and ask if this scheme is elaborated, where the subdivision is to stop.

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[1] W. J. Shearer. Faulty Grading in Our Public Schools. Forum, June, 1902. Vol. 33, pp. 469–473. See also his Lockstep in the Public Schools, Atlantic Monthly, June, 1897. Vol. 79, pp. 749–757.

Dr. W. H. Holmes, to whose thesis on the above topic I am here indebted, collected the opinions of many leading superintendents and principals concerning these plans as compared with the old class method. He found happily most not entirely satisfied with the latter. Many would like to have some time daily given to slow pupils and a few approved of the Batavia scheme or some modification of it. Some would utilize normal seniors or unassigned teachers. Most recognized some evils in the all-class system, but few were ready to give much time to slow pupils as a class, lest it interfere with the interests of the whole. Very few thought that the right cure-all had yet been found.

Three plans favoring individual help are worthy of mention. The first, longest before the public, is that of Superintendent Search, at Pueblo, which makes instruction almost entirely individual and ungraded. Every pupil, even through the high school, recites in a class by himself. Part of the school time every day is systematically given to manual training and to gymnastics and at least one and one third hours a day can be spent where the pupil needs or wants help most, as the teacher appoints, up to the two highest grades when the pupil elects. In the high school, all is departmental and, in the grades, nearly all is made so by the flexible program. The teacher is free to determine the daily hour plan. Much time is allowed for study. The teacher goes from desk to desk; each pupil recites everything in a lesson in a brief way or satisfies the teacher that he knows it all. The advantages claimed are better health, because of more time for relaxation, more independence and self-reliance, more work and enthusiasm, less discouragement and ample opportunity for extra work or indulging one's intellectual tastes.

The plan showed great ingenuity and Superintendent Search has not yet received the degree of recognition he deserves and is sure to have sooner or later.[1] Spaulding, at Newton, has applied these principles in a modified and effective way. Here each can do his best and get the full benefit of his work. Unassigned teachers with no regular classes devote themselves to supplementary individual work with pupils who have difficulty and who are assigned to them by the regular teacher who posts them concerning the character of each, whom they then proceed to study further in order to find the trouble and remove it. They thus coach these exceptional children for next rank or back into one of the regular classes, going from grade to grade, topic to topic. Some need harder work and are helped up to the next class, even though this takes some time. Some children thus helped are just back from a quarantine from measles and need to catch up. A single child may receive all the work the teacher gives to a room, as may a single subject that needs some special stress or where essentials need to be touched up. Here, too, some are set over into the dullard classes. It is very interesting to note that young teachers are more disposed to take up this work with enthusiasm, while on the other hand, long experience in class teaching disqualifies. Where promotions thus are from day to day, individual achievement must be made possible and recognized. These pupils therefore work alternately alone and with other groups or classes. Kennedy's class-individual scheme, or the Batavia plan, is in part the work of Miss Hamilton, who began with the laggards in an overcrowded room. As a result, there were soon "no bright pupils with nothing to do and no dull ones who could do nothing." The standards were set by the ablest and the slow were leveled up to them. Later, instead of two teachers in a room, each teacher divided her time between the individual and class work, and the success of the method was almost from the start assured, and we are told that no teacher now desires to go back to the old way. The plan harmonizes the merciless school machine. The children gained greatly in courage, *elan,* the hope and love of work, and the teacher has new pride and zest in her vocation. The art of study rather than the preparation to recite, which is so prone to teach deception and bluffing, is emphasized. The teacher teaches and does not merely test. Help is applied at the point of greatest need. The study period is supervised.

The present method of exact grading has grave dangers. Not only is the morality of the crowd below other than that of the individual, sinking directly as the size of the crowd, as many recent special studies of the psychology of mobs shows, but in general all standards are lowered and individuality tends to be swamped and merged in the groups, so the segregation of children of like age and attainments also contributes something directly to produce dullards. The family normally contains adults, perhaps even grandparents, and children of different ages, and so does the street. In both these environments the child finds models for its invincible instinct of imitation, which is the chief way by which the child learns and comes to feel the responsibility of himself setting copy for those younger. Children's minds expand faster when they are first associated with others of very unlike age and proficiency. The young often learn most of all from older children. Thus the system of precise classification is more or less dehumanizing and its advantages are chiefly those of the mechanics of administration. The picturesqueness of life is gone. Massing should include the widest practical ranges of age and attainments. In the ungraded country schools of my boyhood, I learned much from the classes I heard recite that were far in advance of me, especially in topics that I had never studied, for these appealed to curiosity and were a most wholesome incitement to ambition, but lockstep methods and isolation with children of my own stage of preparation when it came was stupefying and made school life seem to me monotonous and doubtless made me dull and listless, and if not selfish, at least corroded with ennui. So far as it is mechanical necessity, it is bought with great price and has but little tendency, though it does have some, to make the child live out most fully all the possible stages of his development. Large classes at any rate give opportunity for developing the boy boss, while the rest tend to develop the spirit of henchmen. At any rate, the springs of individuality are sapped. Mass methods with mixed groups of diverse ages may intimidate most members of it and it makes for subordination and docility toward those older, but masses of children precisely sorted and brought like to like deadens one of the boy's chief instincts to do something unique and distinctive, which expresses his own personality and tends toward a precocious habit of mind to think and act in flocks. Thus, massing children of the same age robs the child of his natural right to profit by the companionship of those from whom he may learn and of others below on whom he may practice what he has learned. This cuts off natural channels of expression and many of the *motor* elements of helpful service of course are lost. Thrusting toward and retarding too much is an evil that must be mitigated in every way.

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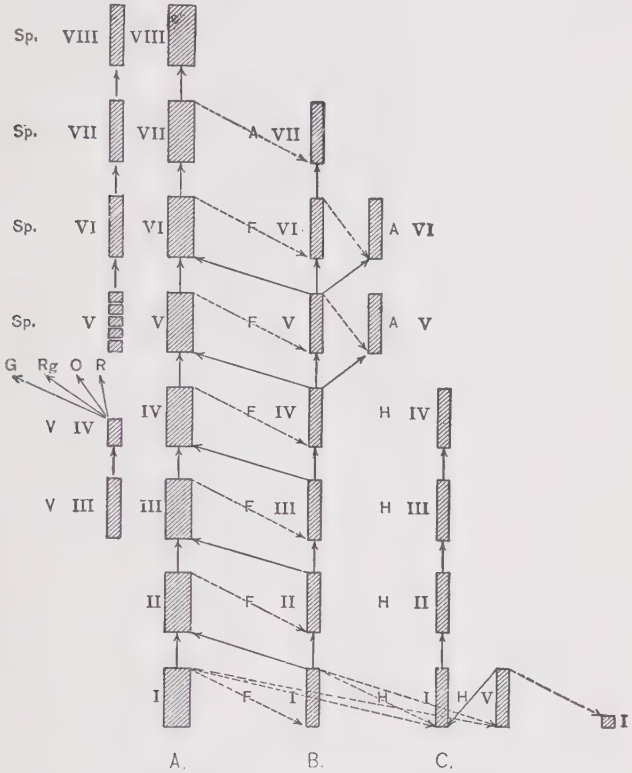
[1] Search, Preston W. An Ideal School, or, Looking Forward. N. Y., D. Appleton and Company, 1901, 357 p.

A crude method of instruction, which has lately come into vogue in many cities, consists in dividing large classes into two or three groups and giving, e. g., one third of the teacher's time to one third of the pupils and taking the other thirds successively with the purpose of making the work more intensive and allowing more time for studying in school to those not reciting. If the groups are arranged by proficiency, this may aid in promotions within the grade and ease the way to advance from the highest group of one grade to the lowest group of the next. It is, however, hard for many to teach intensively and at the same time to keep reasonable order among those not reciting. If children in a large class simply wait for their turn listlessly instead of following the recitation alertly, this method may be economical, for the child can study if he will during two thirds of the time. At best, he is not prevented from using his book as he usually is in class. But, on the other hand, there is more distraction for the teacher who, if her attention is divided, weakens her power. Moreover, to teach twice or three times in succession the same lesson with intensity and inversely as the time, is impossible, is deadening in its effect, and the effort to accomplish all these goods makes directly for neurasthenia. Again, the teacher who really teaches ought to make every moment of all the pupils' time spent under her direct influence in class inspiring and more important than the child can possibly make books for its own advancement. Teachers might readily infect pupils with their own tense, nervous, hurried state of mind. This vaunted method is not a panacea, but a *pis aller* of the mechanical method of setting and hearing lessons. True teaching would lose far more than it could possibly gain by all such fractional repetitive methods.

As Holmes has suggested, we might and should go further in the directions above indicated. We could have optional outside studies for bright children. The individual teacher should be a "school mother with a cozy corner in her heart for every child." She should also be a friendly visitor to homes, should see to it that children transferred from other schools or grades are duly adjusted, keep a personal record book, work out departmental differentiation for perhaps two afternoons a week, and half-day sessions for lower grades might be instituted. The brightest children must receive their full share of time and the dullards should have no monopoly of individual supervision. The teacher should advise the parents concerning not only defectives, but peculiar children. It is obvious that such work promises to introduce a pedagogical new dispensation and should be advanced just as far and fast as practicable. At no point of our entire educational system is knowledge of child nature so needed and so beneficent. Vastly as they would profit by it, no provision is yet adequate for giving such teachers the special training they need for their work. The pedagogic conversion of these Batavia teachers, if we are rightly informed, and of others who have worked individual plans successfully, gives an experience not unlike a Copernican revolution from the old scholiocentric to a paidocentric viewpoint. Knowledge of the child takes proper precedence over knowledge of the system and is coimportant with knowledge of the subject matter. The stress is placed where it belongs upon sympathy, tact, and analysis of the child's mental processes in coping with each topic. I would sit at these teachers' feet and would like to have on the same bench beside me a goodly row of educational politicians, organizers, uniformitarians, machinists, methodasters, official bureaucratic prescribers of work, exacters of set tasks, superintendents who lay heavy burdens, grievous to be borne, of marking and reporting and office work upon grade teachers, which they would not touch themselves, the Scribes and Pharisees of the old legalist dispensation who need this gospel as sadly as some dry-as-dust professor of theology needs vital Christian charity and piety. Having learned of these individualist workers, I would turn about and try to teach them everything useful I could of child study and would stake all its wealth and worth upon the avidity with which they would learn and profit by it all, every item of it. Their ministration restores teaching by bringing it back to its first, best, most original form. So far, too, as intellectual advance in the knowledge of the material of the curriculum goes, this is probably one of the brightest pages of contemporary pedagogy, and the moral uplift its promoters have found or made in connection with it was inevitable. An apostle of a new educational evangel in this country could find here his best disciples and this his most strategic point of departure. There are nowhere such possibilities, such promise and potency of new and better things. Every sort of welfare work, school-extension work in which the school seeks to take its inspiration from what the institutional church seeks to accomplish are found here. The child instructs the teacher and the teacher knows and leads out the child. But it should not be forgotten that these centers ought to add something more, and surely the pedagogical clinic, the life and health book for each child kept during the school life of each; including the health records, occasionally written work at its best in each topic, a note here by the school physician, there by the parent and teacher, athletic records, physical tests and measurements, to say nothing of gauges of vocational aptness and a bureau for that end to adjust children to the calling they are fittest for—all these and more must come, or "the unfinished window of Aladdin's star, unfinished will remain." Let only those who are leading this epoch-making movement realize that their work is just begun, and not lapse into a fell sense of finality as if they had already achieved. A German scheme of grading is given above.[1]



A. Regular grades. (V. Preparatory for higher gymnasial, real, and other classes.) (Sp. Language classes, with a preparatory course.) B. Auxiliary temporary classes (Förderklassen). C. A four-class system for slow children. The arrows represent possible transitions. Each block is a grade and the slower the child the farther to the right is the vertical line.

XI. Again, the strain of formal *examination* and commencement *does not fall in the psychological season* when the system can best bear it. The spring is the season of most rapid growth in height and autumn, in weight, but school work is most intensive when these types of growth most need the total kinetic energy. It is not improbable that the growth season of the mind and that of the body alternate, one tending to rest when the other advances,[2] although there are still a few who hold that, were our methods of education proper, growth of body and mind would coördinate. On this very vital psycho-physiological question we have as yet no reliable scientific knowledge, but reasoning from the slow-growing years, e. g., six and seven, and again seventeen and eighteen, the relations between brain work and growth would seem to be inverse rather than direct. The best suggestion seems to be that free, spontaneous growth of intelligence coincides with that of the body and brain and that work involving more or less nerve strain and active volition can be done with most safety during the resting intervals of growth. While studies are needed to determine these points, it is almost certain that the present school year is not rightly adjusted, for it neither corresponds to nor reciprocates with the months of maximal growth.

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[1] Die Deutsche Arbeitsschule, Heft 1, January, 1909.

XII. Some ascribe many of the evils of our schools to an increasing *percentage of dullards.* One expert says from two to ten per cent of the children of New York are mentally deficient, and Groszmann says that a much larger per cent is right for the classrooms of Newark. The New York superintendent lately said that, of the 536,000 children in the schools of that city, 200,000 were abnormally old for their class, partly because so many are foreign-born and gradations are made mainly on the basis of English. But the dullards swell the rank of those over age materially. All must move on with the class or else spend a year in repeating old work, for the system is rigorous, and what can be more disheartening or stultifying? Dullards always contribute something and often much to slow down the progress of the class. They are often able to attract more than their share of attention on the part of the sympathetic woman teacher, whose standing suffers if

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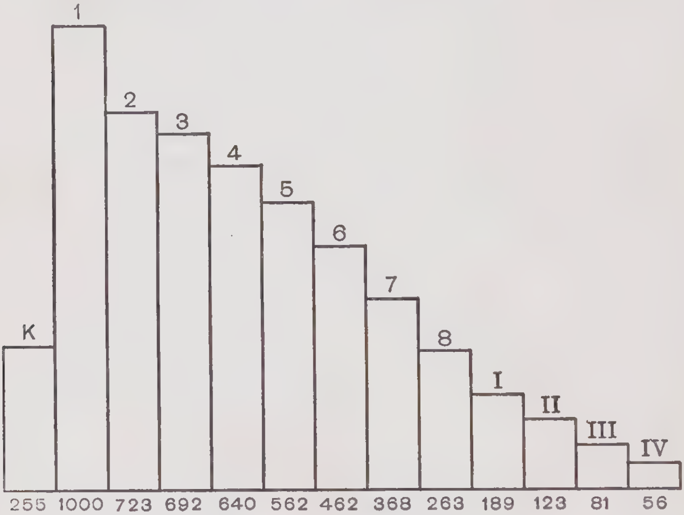
[1] See The Making and Unmaking of a Dullard, by Thomas E. Shields. Catholic Ed. Press. Washington, D. C., 1909, 296 p.

many fail of promotion. Moreover, such is the natural propensity to laziness of even bright boys, who are prone to slow down their pace to that of the average or below it, that habits of stupidity and inertness are often more contagious than are the examples of the best workers. This is why the elimination of the stupids is so urgent and so often effected to-day by segregating them in various ways.

XIII. The evils of *retardation*, which is the first step to elimination, are notorious. A recent writer estimates that in New York more than 150,000, or some thirty per cent, of the children are one year behind the grade they should be if they had entered and progressed a grade a year, as the system requires; that 61,000, or twelve per cent, are two years behind; that 20,000 are three years behind. The cities differ greatly in this respect, Boston having some twenty-one and Kansas some forty-nine per cent of children who failed of promotion one or more years. In one of our large cities some sixty-one per cent are for various causes too old for the grade in which they should be. It would thus appear that our system presupposes a state of things which does not exist, viz., that the child should enter at six and pass on, one grade each year, until at fourteen he will have completed the eighth grade and satisfied the requirements of our most advanced laws of attendance. If we could assume that the expense of our school system was increased in proportion to the number of repeaters, the financial loss would be enormous, but we must not forget that there is a sense in which taxation is not at all increased. The case of the repeater is simply pathetic. The bloom of interest has been rubbed off and there is some sense of inferiority and isolation that his mates have gone on and left him behind to trudge through the whole weary way again, which is a most disheartening prospect. Moreover, there is nearly always genuine loss, so that this is perhaps the chief tragedy of the grades. The ideal would be to keep every child in every subject where it can get most good and have the greatest stimulus to work up to its full measure of ability, so that promotion should be possible at any time and in any subject; that is, there should be the very shortest intervals possible between reclassifications and promotion should be at any time by points and by individuals.

XIV. As to *eliminations*, a point which has lately attracted great attention, Ayres[1] shows that, judging from the grade distribution in 386 cities on the basis of 1,000 children in the first-year grades, the number in the following grades is represented as in the appended table; that is, out of every 1,000 who enter the grades the first year, only 263 complete the elementary course of study, and only 56 survive to graduate from the high school. Another shows that, of all children in the fifth grade, sixteen per cent will be eliminated before they reach the sixth; that of all the pupils in the sixth, twenty per cent will be eliminated before they reach the seventh; that of all in the seventh, twenty-six per cent will be eliminated before they reach the eighth; and of these, thirty-two per cent will not enter the high school, and of all those who do enter it, thirty-seven per cent will be eliminated at the end of the first year, which is the point of greatest mortality of all; that twenty-nine per cent of these will be eliminated before the third year, etc., so that the high school, which attracts so many, holds but few.



K= Kindergarten.
Roman Numerals = High School Classes.

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[1] Leonard P. Ayres. Laggards in our Schools. N. Y., Charities Pub. Committee, 1909, 236 p.

We cannot statistically weigh the motives to leave or the waning of the desire to stay. From this state of things some have inferred that the school should cease to train pupils to go on, that no grade of education should be chiefly preparatory for a higher one, but that the greatest interests of the greatest number, viz., the quitters, must be served so that the course should be so arranged that the pupil can leave at any time with the maximal of advantage from what he has already obtained. We are far from having sufficient continuation and industrial and other courses to meet the needs of those who leave.

Our prevalent *methods of teaching* are open to very grave criticism. On the lines indicated in Chapter XIV, we set and hear lessons, mark, grade, and rank pupils on a 4-, 10-, or even 100-point scale. Lesson-mongering is not teaching. As I have said, I never saw a private study hour in a German school, nor did I ever see anything like hearing a recitation, while the text-books play a very subordinate rôle to the teacher, but books for teachers are very numerous and admirable. Pupil and teacher work together. In a foreign language the teacher is the dictionary and pony. Everything is explained often after a maximum of interest, so that progress is amazing and all home work is mere repetition. The teacher is charged with information and with a sense of his mission, almost never sits, but teaches with might and main. I believe that of all the criticisms justly made against our schools, the very gravest is along this line.

XV. As to the *age of entering*, the age of six or thereabouts has certain physiological traits which have suggested, as I have elsewhere shown, that it may mark what was once the dawn of puberty in our remote anthropoid forbears. It is the age in which most pupils enter school, but it is also an age prone to perturbations of health, so that there are many reasons for thinking it is not the best year to enter school. At any rate, the school hours should not exceed three daily at first, and in spring and summer the school should begin earlier in the day—work should be lighter in the afternoon, if indeed there should be any afternoon work. But stated school work should and probably will, sooner or later, be postponed one and very probably two years. Indeed, the first two years are to a great extent wasted. The child is not mature enough for the stock methods of the three R's. It is the age for less formal study. As many censuses of the contents of children's minds on entering school show, they are grossly ignorant of their own environment.

Not only this, but the report of the Woman's Committee under the London Council, 1905,[1] showed but little difference between early and late comers (from three to seven years of age), but that little was in favor of the latter who were more original than observant. Those who entered at seven were just as proficient in the three R's by the end of the year as those entering the school at five, as in England all may do. The teachers mostly agreed that there was little gain in sending children to school early, though this may be best, if homes are unfavorable. They are prone, however, to lose freshness. As state aid in England often depends upon numbers, inspectors and office holders did not entirely welcome these conclusions, and so the Bathhurst Report in 1906 again considered the subject, although it dealt very largely with practices in other countries, and concluded that some kind of school should be available for children between three and five. L. P. Ayres [2] based his study upon 11,085 children entering from five to twelve, found that those beginning at six completed the course in one month less time, those entering at seven in two, those at eight gained three months. The child who starts at nine completes the course in five months less time than the one who starts at eight. So he concluded that the age of seven on the whole gives the best balance and showed that the largest proportion of those who enter at this age complete the course. Although most American cities have an eight and a very few a nine-year course, Superintendent Greenwood,[3] of Kansas City, concluded that the normal child can do all that is worth doing in a seven-year course. In this city, a larger proportion enter the high school, stay longer, and more graduate than in any city system of its approximate size in the country. He holds that little or nothing is gained by entering before eight or nine and that as many finish in six as in eight years and that eleven years fits for the higher institutions as well as twelve or thirteen. V. Vaney [4] concludes that children lose by trying to read and write before seven and that they learn both much more quickly between seven and eight than between six and seven.

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[1] Reports on Children under Five Years of Age in Public Elementary Schools, by Women Inspectors. Wyman & Sons, 1905, 155 p. Also Report of the Consultative Committee on the School Attendance of Children below the Age of Five. Wyman & Sons, 1908, 350 p.

[2] Ayres, L. P. Entering Age as Affecting Progress in the Grades. Report of the Russell Sage Foundation, 1909.

[3] Progress of Pupils through School. Education, Jan., 1909. Vol. 29, pp. 276–282.

[4] Vaney, V. L'age de la lecture. Bull. de la Société Libre pour l'Étude psychologique de l'enfant. Oct.–Dec., 1908. Vol. 9, pp. 11–17.

The *kindergarten* should be, but is not, prepared to take the child on to the age of eight, though it would have been had it not in this country fallen into bad ways. It has just at this moment the greatest opportunity ever offered it, but it is not prepared to make the most of it. Froebelism was introduced into this country in response to a demand for a broader education than the school could give. It was in its author's mind a comprehensive child-welfare institution to stand for all-sided development, hygienic, moral, religious, industrial, and fill every hour of the day. It even anticipated some of the modern ideals of eugenics and the making of better women and mothers, but, disastrously for it, it had to appeal to school authorities for support to do this. It had to show formal intellectual results, so gradually its best and largest traits were eliminated, one after another. It, too, became schoolish and sedentary. Hence, we have the highly pedagogized kindergarten to-day led captive by academic philistinism and justifying itself by platitudinous metaphysics that the schoolmasterly mind so loves to affect. Instead of converting the school to its own larger life, it has itself been converted to a distorted fragment of what it was designed to be. Froebel sowed the germs of genetic psychology, but his scheme was immediately seized upon by metaphysicians, who translated it into the terms of Hegel, whom Froebel abhorred, and never could have understood himself and which will always be abracadabra to students of child nature. The practical schoolmaster, too, has seized upon the gifts and occupations which were best adapted to mechanical drill and schematization and stressed these out of all proportions, at the same time smothering the new life and spirit of freedom which was the best thing in Froebel. Thus, instead of being adopted and incorporated into the public-school system and being ready to take over the years from six to eight, it has paid the fearful price of prostitution. The attenuated and elaborate trivialities of the American kindergarten no more represent Froebel than does the thin, prim, narrow, formal manual training represent the great new demands of industrial education. The school has thus protected itself against two of the greatest incitements of modern times by its too common method of inoculation with an attenuated culture. But for the first of these miscarriages the kindergarten might to-day be not only the vital center of all child study, but also of all child-saving and welfare agencies and at the same time the power house and the unifying nucleus, and it would take over the child up to eight, but by these emasculating influences it has lost the greatest of all its opportunities to be a leader and a light in the great synthesis that impends. Its theories are antiquated and it has been left behind, in spite of its great opportunities and intrinsic possibilities, so that the great task of correlating even welfare agencies for childhood is left to the geneticists. Had it done this work well, it would to-day not only vitalize these two dead years, but give a momentum that would be felt all up the grades. It is perfectly clear, as I have tried to show in the chapters dealing with reading, writing, and arithmetic, that much of any drill upon these topics before the eighth year is not only waste of time, but positive injury, giving either habits or points of view that have to be changed with great effort, if indeed their evil influence ever is overcome.

XVI. As to the *length of the daily school period* and its distribution, we still have too little reliable or decisive study, and it is pretty plain that we have not yet found solid ground. Hardly less startling than the conclusions that children who delayed entering school a year or two were just as advanced at the age of eleven or twelve, have been the results of experiments that indicate that one session a day is sufficient to insure about as much progress as two, and the other result that seems to show that the short lesson periods are just as effective as long ones. As to this latter point, in some respects the old tests of Chadwick[1] are still best. He concluded that at ten the attention could not be held to a topic to advantage more than twenty minutes; at twelve, not more than twenty-five, and at fifteen, not more than thirty minutes, and recommended this length of lesson for these ages. His experiments with half-timers and full-timers convinced him that the former under the same conditions did better. Indeed, of the six years usually devoted to the three R's, he believed that three years of intensive work would produce better results. The present school day he held to be far beyond the physiological capacity of the child. He and others since have collected long lists of names of prize men in universities and intellectual leaders like Darwin, Spencer, Sir Walter Scott, Cuvier, who accomplished a great deal of high-class work with very few daily hours. Another noteworthy contribution to this subject was made by Charles Paget in 1859, who showed that in factory towns where children were employed half the time, the half-time school did about as much for them as the full time. Liverpool experiments, however, show that while a six-hour school day was irksome, the half-time plan also caused deterioration.[1] More lately came the Charlottenburg scheme of the open-air school (1904), embracing 240 children from seven to fourteen who were in poor physical condition, with twenty-five in the class and half-time lessons, with much time for play and work and two after-dinner hours for sleep and rest, then one hour of study, i. e., two and a half per day in all. Yet nine tenths of these children who recovered went back to the grades they left and went on with their former mates. The Providence, Boston, and Chicago part-time schools, usually in the open air and for public-school children, also indicate that children of average ability can do about as much under favorable conditions in half the time. Woods Hutchinson[2] would have one fourth of the child's time for school work, one fourth for the shop, one fourth for study, and one fourth for play.

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[1] Chadwick, Sir Edwin. The Health of Nations. Abr. by B. W. Richardson, N. Y. Longmans, 1890, 320 p. See also Thomas Garbutt, School Hygiene, March, 1910. Vol. 1, pp. 157–169. Also M. E. Sadler, Continuation Schools in England and elsewhere. Manchester University Press, 1907, 779 p.

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[1] Another investigation of 1,200 half-timers in the English textile trades—i. e., children from 12 to 14, who work six hours in the mills and go to school half a day, was made in 1907, by Peter Sandiford, with the result that the half-timers were shown to be inferior in height, weight, and general health to full-time pupils, the deterioration in height and weight dating from the time of their entrance to the mill, and the consensus of opinion among teachers was that the half-timer not only loses one half of education when he most needs it, but that the afternoon school was of little use, for the children were too tired to learn and were in consequence much duller than full-time children. (See M. E. Sadler, *op. cit.*, Chap. IX.)

[2] Evil Influences of School Conditions upon the Health of School Children. N. E. A. Report, 1909, pp. 262–266.

W. H. Allen[1] thinks that "the child who enters school at eight rather than six will be the gainer at twelve." C. Duke, of England, says two, or at most four, hours a day in school are enough for any child.[2] Some twenty cities in this country have tried the one-session-per-day plan, which has generally been found most successful for primary and grammar grades. Superintendent Gregory, of Chelsea, Mass., after a great fire there, tried it and up to his death claimed that it was a positive advantage, while Spaulding, of Newton, tried several forms of the plan with less conclusive results. The representatives of the Playground Movement are often earnest advocates of the one-session plan. Another form of half-time school has been described in the chapter on industrial education, where pupils alternate weekly from school to shop, and here it is claimed there is little or no retardation. There are short but intensive lesson periods, forenoon sessions and alternating weeks. If these do all the work as well or nearly as well as the old five- or six-hour grind, what are the inevitable conclusions? Of course, very much depends upon the conditions, such as urban or rural life, distance from school, opportunity for good lunch, weather, climate, season, school gardens, gymnastic tendencies, etc.

Perhaps the tendency now is as Burnham[3] thinks, or as the Nuremberg Congress, 1904, unanimously opined, rather toward increase of the one-session plan, which teachers certainly tend to favor. Wagner[4] and Doléris[5] urged that nature tends to protect the child from the strain of too long a day by the safety valve of inattention. Certainly, morning work brings less fatigue. Smedley,[6] of Chicago, found by ergograph tests that with two sessions, children's muscular strength was less in the afternoon. Schuyten[1] found their æsthesiometric sensibility less. Sakaki[2] found by the last method that one hour of elementary school work in the afternoon caused as much fatigue as two hours of morning work, yet Bolton[3] and Thorndike[4] found memory power no less in the afternoon. Schmid-Monnard[5] found morbidity, especially headaches, greater among two-session children and that twice as many one-session children habitually engaged in active plays and games. Steinhaus[6] found the same result in two schools where the experiment was tried in Dortmund. Fichtman found 70 per cent of the 777 German teachers preferred the one-session plan. Kräpelin thought there were two types of children, one that did better in the morning and one in the afternoon. Blazek found a difference in gymnasial pupils of different degrees of ability and that 63 per cent of them could work systematically, but that few could work more than three consecutive hours and that between these hours there should be a rest of fifteen minutes. One long session is unfavorable certainly to breakfast, if not also to lunch and some think the better the home the more justification can be found for omitting the afternoon session.

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[1] Civics and Health. Ginn & Co., Boston, 1909, 411 p.

[2] See L. W. Hine. Ethical Culture School of New York, 1908. Education, Oct., 1908. Vol. 29, pp. 84–91.

[3] W. H. Burnham. One Session a Day or Two? Hygiene and Physical Education. March, 1909. Vol. 1, pp. 1–8.

[4] Ludwig Wagner. Unterricht und Ermüdung. Berlin, Reuther & Reichard, 1898, 134 p.

[5] J. A. Doléris. Rapport sur la Valeur comparative du Travail du Matin et du Travail de l'Aprés-midi. Repos prolongè de l'Aprés-midi. Premier Congrès D'Hygiène Scolaire et de Pédagogie Physiologique. Paris, 1904, pp. 89–131.

[6] F. W. Smedley and W. S. Christopher. Report on Child-Study Investigation. Board of Ed., Chicago, 1899, 48 p.

Indeed, it is in general the uniformitarians who have little conceptions of the range of individual differences among children, parents, homes, communities, etc., that accept one only norm in any of the above methods. There is no one best way and flexibility must be the only rule. Undoubtedly most stated work of the grades could be made far more intensive by good teachers, frequent pauses, with matter and method better adapted to this so that all that is done could be accomplished in two thirds if not in half of the time now devoted to it. With other outside work involving more physical activity, zest, the right kinds of play and change so that occupation of one hour will be a rest from another, children could be kept learning eight or ten or twelve hours a day without nerve, eye, or other strain, or fatigue, but be the better for it. Most of these extra working hours could now be made far more profitable than they are by better knowledge of and adaptation to children's spontaneities which are almost unlimited, provided only they are free. But we are yet very far from being able to make out such a program for all of every day and every evening in season. From what we may infer from scores of sporadic instances, e. g., where Mrs. John Wesley taught the alphabet to her children in a single day; how Colburn taught number and the many individual ways of learning it by geniuses, that are not down in book but are more psychological; how the great Latin teachers of the day of Ratich wrought wonders with that language; how Comenius and especially Basedow (in his *Elementarbuch*) taught life, and how some experts have inducted into a modern language what individual teaching is now doing in some places; what Seguin did with the feeble-minded; what has been done for the blind from Laura Bridgman to Helen Keller. I believe it admits of no doubt that the average child could do the work which is now usually spread over eight years in at most three years and probably less if all the conditions of circumstances, etc., were best and also that even were this done, the child would be learning from day to day more from nature and the street than in the school, and that all this could be done without worry and strain, provided the conditions were ideal. It is friction with the child's nature, disharmony with its needs, old traditional methods and conventionalities that wear. The chief pedagogic disease to-day is artificial retardation and colossal underestimation of the child's real powers, insistence upon adult ways of doing things. But the chief handicap on our system is dull teaching that obstructs and makes hard the way of learning. The average teacher in my observation does his or her work in a wretched, stupid, and routine way without zest, insight, or ability. The nature of this occupation tends to make the incumbent a public functionary who goes through the daily task in the easiest way. Only very rarely do we see traces of pedagogic genius. The superintendents, too, are often almost utterly without insight and who does not know cases where they have been exterminators of originality, of genuine womanly love for children on the part of the teachers under them, the best of whom in the grades are no longer free to do their own work in their own way, but must slow down to the average pace. Still, we have cause for congratulation, because on the other hand we could easily have the children take twice as much time as they do in the work of the grammar grades by merely increasing the proportion of method to matter. Perhaps there is not quite as great difference between teachers as between pupils, but I am convinced that the average of the worst few and the average of the best few would differ as much as do their classes, and the same is true of superintendents. There are certainly dullards and laggards in all three alike, just as there are geniuses and leaders. If the sluggishness of dull pupils with dull teachers is incredible, so, too, is the rapidity where both are bright. All this could be also said of local boards of trustees and school committees.

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[1] M. C. Schuyten. Vorzüge des ungeteilten Unterrichts. Intern. Kongress f. Schulhygiene, Nuremberg, 1904. Bd. 2, pp. 185–200.

[2] Yasusaburo Sakaki. Mitteilungen über Resultate der Ermüdungsmessungen in vier japanischen Schulen zu Tokio. Intern. Kongress f. Schulhygiene, Nüremberg, 1904. Bd. 2, pp. 295–328.

[3] Thaddeus L. Bolton. The Growth of Memory in School Children. Amer. Jour. of Psych., April, 1892. Vol. 4, pp. 362–380.

[4] Edward Thorndike. Mental Fatigue. Psy. Rev., Sept. and Nov., 1900. Vol. 7, pp. 466–482; 547–579.

[5] K. Schmid-Monnard. Die chronische Kränklichkeit in unseren mittleren und höheren Schulen. Zeitschr. f. Schulges. Bd. 10, 1897, pp. 666–685.

[6] Steinhaus. Die hygienische Bedeutung des fünfstundigen Vormittagsunterrichts. Zeit. f. Schulges, 1907. Vol. 20, Nr. 9 u. 10, pp. 533–569.

XVII. *As to studies and methods*, perhaps the chief and most just criticism of our common-school system is that there is a vast body of things learned that are forgotten when school life ends. This wastage foots up to an enormous annual loss. Every year hosts of pupils leave forever behind them all their little budget of knowledge of Latin, algebra, modern languages, etc., which will never serve them in any appreciable way or degree or tend to make them more successful, happier, or more efficient. This loss of time and effort during the most receptive period of life would probably have been far less if the country had not grown rich and careless of its most precious raw material of human life. Norway, e. g., is a poor country which has forged out its civilization by a hard, long struggle against a severe climate and very unproductive soil and has only a very small per cent of its area capable of cultivation. To-day it leads the world in casting remorselessly out of its school curriculum not only the classic languages, but everything not of direct use to pupils later. It takes in good earnest the old adage to teach not school, but life. The vital pulse of the community beats in and animates everything in the course, and illiteracy there is a vanishing fraction of one per cent. A considerable part of its pupils go daily two miles or more to school, despite the climate. Thus, from start to finish, prime regard is had for what the pupils will need as self-supporting, self-respecting, and efficient members of society. The dead hand of the past has relaxed its grip and the schools give the culture demanded by modern life. Parent and child both realize that position and effectiveness in adulthood depend pretty directly upon success in school. Here, on the other hand, our curriculums, methods, and ideals are still to quite an extent inherited heirlooms from the past. Our classes, all the way from upper grammar and lower grades to the end of the college course, know that their success in later life bears little relation to that in school. Social standing is a more potent motive for going on than is civic and industrial efficiency. All knowledge acquired under these conditions and with such outside motivation is a dead or at least but half-vitalized thing. It is easily sidetracked or left to atrophy and sloughed off as soon as its examination value has been attained. It is an artifact, an air plant, and strikes no deep abiding springs of interest and leaves distaste, if not positive aversion, later, because, as it was acquired without vital interest, it brought early but real fatigue, and so did not strengthen, but weakened, power. It should be hard to keep children out of rather than to keep them in school.

It is always *wasteful to teach what will never be thought of or practiced outside of the schoolroom or after school years are ended.* Things learned of which the parents at home or the supervisor of play sees no trace, to which are bidden a long farewell when the child leaves school, have struck no root and are like seeds sown where there is no soil. All such things are school artifacts, exotics that cannot live out of the hothouse. Songs never sung outside, athletic exercises never practiced spontaneously, drawing of a kind never done for any play purpose, stories never thought over or repeated, vocabularies or moral lessons that never recur—all these are of little value for life. The same is true for things taught before their time. Not only observation, but now several ingenious tests have proven that writing and spelling and number work have little place in the soul of the child before eight, and if taught are liable to kill interest for them, which normally is quick and alert a year or two or more later. Play, nature study, oral-language work, should constantly precede them, and two or three hours of intensive activity under schoolroom conditions, suitably broken by pauses, is more effective than current practices. Experiments have shown that the best written language work is done by children who did not learn to write until after eight, and the worst by those who were taught to thus long-circuit their thoughts earliest. Flechsig has conclusively shown that the dominant faculties of a child are motor and that the efferent brain areas are supreme in the hierarchy of man's powers, making of them a monarchy rather than a republic. These are principles that now demand universal recognition in practice. The play motive is like a great power in human nature which should be put to work for culture. Public education must get into a new vital relation to what children love to do, are curious to know, and the things they most want. We must refine and sublimate these interests, and not oppose them on the false theory that discipline and will-power are only gained by contravening natural inclinations. Athletics, e. g., must and can be spiritualized into not only body but soul keeping. It is strange that opposing sentiments like these are heartily applauded in teachers' meetings by those who, either by force of tradition or authority, violate them in all their daily work. This, of course, shows that educators are doing what they themselves are not vitally interested in, that they are working uphill against their own natural insights and inclinations. Our devitalized school methods are themselves flagrant illustration of the results of forcing effort against spontaneity. Perhaps it is well to have ideals and to have them occasionally warmed into life for brief moments, even if they are forgotten and violated in the daily routine of teaching. Or would it be better for their unity of soul and their peace of mind to forget the golden crown over their heads because they must perforce grub with the dull hoe of prescribed methods in the shallowest and least arable parts of the youthful soul? Thus, teachers do not use their best powers, but leave them behind when they enter the schoolroom as do the children. Superintendents and principals should give some attention to the psychology of womanhood in the teachers under their charge, instead of being voluble in prescribing ways and means, ends and goals that keep the feminine soul from getting into closer touch with individual children for which women have a veritable genius that man knows little of.

XVIII. *Illogical and mind-destroying evils.* Here we must place our old very confusing and contradictory *tables of weights and measures*, troy, apothecary, and avoirdupois, to which we have clung with singular confusion. The metric system not only involves great economies, but it is pedagogically interesting if not inspiring. One has only to learn a very few terms in order to master every kind of weight and measure, all arranged on one harmonious principle. Another mind-breaking factor is our *spelling*, which takes months and perhaps years of time. Its inconsistency and absurdity has been pointed out elsewhere. Such antiquated methods in business would long since have been cast to the scrap heap along with the crudest old tools after machinery came in. *Our language itself is a strange conglomerate* of various tongues rather loosely compacted. Our concrete words are often Anglo-Saxon, while the abstract ones are Latin, Greek, or French. Compare *Huf* = hoof and *Hufschmied* = blacksmith, *zwei* = two and *zweitens* = second, *finden* = find and *Erfindung* = invention, *rufen* = call and *Ruf* = reputation, *spielen* = to play and *Vorspielen* = prelude, *denken* = to think and *Gedanke* = idea, *rot* = red and *erröten* = to blush, *gehen* = to go and *Lehrgang* = curriculum, *ziehen* = to draw or pull and *anziehen* = to attract. Thus, as a German teacher[1] who had taught in this country points out, the German child has a great advantage in that, knowing the elementary word, the technical one is derived from it. To classify a dog as canine and a cat as feline involves a barrier between popular and scientific knowledge, while the technical terms of the Germans can be partially understood by the child. This, with more consistent spelling and pronunciation, enables the German child of six to read and write in a few months and to push on to other matters. On the other hand, it must not be forgotten that our tongue has a certain advantage in being without grammatical rules, although grammar is the child's logic, and this the American child lacks.

XIX. The *absence of religion* in the education of children, I think, we must count a grave loss. Even if religion were only a myth or fable which cultivated adults outgrow, nevertheless childhood is repeating those stages in the life of the race when religion was a mighty power. Humanity has been immensely aided by it in the past, and children, too, need to feel supernatural sanctions for right. Protestant of Protestants though I am, I feel the great force of the contention of our Catholic brethren that the school should not be Godless. This conviction is borne home to me not from any religious belief or scepticism, but solely from a study of the nature of the child. The recent experience of France and of Japan, as I have elsewhere shown, in their attempts to dispense with religion in the schools may have been a positive gain compared with the kind of religious teaching the children of these lands had before, or perhaps could have, under conditions there prevailing. But there is now possible a type of religious training that would mean incalculable gain. Religion appeals to the feelings and will and to the unconscious depths from which our life is ruled. Its restraints and its inspirations are deeper than the intellect and are to powers vastly stronger and older than it. The intellect of childhood is not sufficiently developed to make moral judgments, which are always complicated, and authority and transcendental influences will always be sources of appeal. It was a simple and, if we please to call it, also a masterly stroke of statescraft here, at a period in our history when sects were counted by the score and toleration and liberty of conscience were excessively revered, to secularize the schools. Indeed, this may be said to have almost been a cheap and makeshift device. At any rate, this condition of things has now passed, and while ethical culture may do for educated adults, it leaves large areas of the child's soul fallow. Hence, we should now set about to find fundamentals in religion that can be taught all children for their moral good (see Chapter V), to say nothing of making headway against the ignorance of the Bible in which the rising generations are growing up, which is so dense they cannot understand the allusions to it that pervade English literature at every period of its history, and that the supernal motivations to righteousness, which can come from this source in tender years as from no other, be not lost.

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[1] Warum kann die amerikanische Volksschule nicht leisten, was die deutsche leistet. Samml. pädagogischer Vorträge, 1905. Bd. XV, Heft 2.

XX. *Latin*, especially as usually taught often in the upper grades, but especially in the first year or two of the high school, I believe to be a fearful incubus upon our educational system. As I have before said, I believe profoundly in the importance of that tongue for those who mean business with it and are capable of going far enough so that it can influence their lives, but the Latin now taken by more than half of all our high-school pupils is nothing but the shadow of a shade. The number of words learned in a five-hour-a-week course per year, which has been carefully estimated, is pitifully small. The method of teaching is the most mechanical and formal and the teachers of this subject are often wretchedly equipped, and they can get along better than in any other subject with a knowledge only slightly in advance of that of their pupils. It has a certain charm not only for Catholic children, but for Protestant, because it seems like crossing the great divide that separates the educated from the uneducated classes. But this charm soon palls, and even girls, but especially boys, drop out of these classes, if not of school. When we consider the immense claim of the living languages, too, that have none of the odor of death about them and the immense increase of living topics that the child needs to know to fulfill his duties to the world, and how much of these Latin crowds out, we can realize this evil.

Something the same can be said of *algebra* as it is now taught in the high school. Its mysterious symbols impose upon ignorance and the smattering of knowledge which the pupil gets before he reaches the limits of his ability or interest or time is pitifully small. Algebra, save with those who have already some grounding both in arithmetic and geometry, is prone to be a purely formal discipline. The rules are mechanical and only half understood, and the results are ground up by simply following the directions, with very little conception of what it all means, so that the results obtained here are almost lost as soon as school is left.

XXI. *The dominance of the college over the high school* is in many parts of the country, especially in the East, still excessive and deleterious, although this evil is slowly abating. Great good was done a generation ago in giving the high schools a brace, but this work has been enormously overdone in the interests of recruiting for college. There is no more intrinsic right for the college to prescribe for the high school than for the high school for the grammar grades, or they for the kindergarten, or for the professional schools to lay down the law to the colleges. The high school has so long submitted to dictation from this source in both topic and method that it has become craven, and well-equipped institutions have felt flattered to be called good fitters and vie with each other in printing the proportions of their senior classes who have entered college without condition. The time of this craven subserviency should be ended. The high school is the people's college. It should say to the dons who manipulate the bachelor's degree, " Here are our graduates for whom we have done what we deem best for their stage of life. We and not you are judges of what this is. Take them or leave them," and the college, with its intense competition for students, would gladly accept the conditions and in the end would greatly profit by it in the number of students. The college-entrance requirements and examination boards have done some good, but this is now being overweighted by mischief. The only question the college has a right to ask is whether or not the boy or girl can do the work they offer and get more good in that than in any other stage. If they can, no matter where or how long they have studied or how many points they have to their credit, there they have a right to be and will be found when we have an adequate system. Most of the evils of our high schools, which are many and great, such as the hypermathematical nature of physics, the hypercritical etymological method of studying English, the overemphasis of dead subjects, the miserable aping of college and even university methods of teaching, the overstress of specialization, and the aping of all college ways by high-school boys and girls—all these have been either excessive or perverted. From C. F. Adams's study of the gross deficiency of the boys entering Harvard a score of years or so ago, the children of our schools have been tested again and again and been found wanting, although Springfield and a few other cities found comfort that the children of to-day did better on the whole than their grandparents did in their day. Two recent tests are the following:

> The Cleveland Board of Education appointed a commission of experts and business and professional men to examine the school system to ascertain what was the matter with it, and their amazing report was published in August, 1906. Employers of school graduates and 1,600 teachers were asked for confidential opinions. Nearly all agreed that the pupils turned out by the school system of this city, one of the best in the country, could not read intelligently, could not solve simple problems in every-day business arithmetic, and that their notions of geography were very foggy. This report was so contradictory to current opinion that the committee proceeded to make a test of its own in arithmetic, which was a branch in which the schools of that city took special pride. Eighth-grade classes of several different schools in the best and in the worst parts of the city were chosen and a bill requiring simple multiplication and addition of the several products and deduction of a few partial payments, all in small numbers and printed, was given to each to do, with the added request that all misspelled words be corrected. 144 pupils failed to spell 551 words and only 57 did the example cor-

rectly, the best answers being from a school chosen to represent the emigrant class. These results were so disquieting that a yet simpler set of purely arithmetical tests were given to the same grade in five schools of 193 pupils in all. The problem in simple addition was incorrectly solved by 104 of these pupils, that in subtraction by 22. In multiplication, 168 failed, in division, 86, and in percentage, 62. In still another test of 50 words in common use submitted to four eighth-grade classes, 1,887 words were misspelled, or over 13 per pupil, and only one, a girl, spelled all the words correctly.

In New York City, Kansas City, and Chicago either similar opinions or tests of pupils entering high and technical schools or the civil service suggest a state of things not much better; for the grossest and most nonsensical answers to the simplest questions in geography and history are given by far too large a proportion. A test of the girls in the Wanamaker stores in 1906 showed that very many of them added up the sales of the day with difficulty and so incorrectly that several persons in each store must spend their entire time in weeding out errors. The eighth-grade children are the flower of the school system. As the average duration of school life for the American child is only about five years, the great majority leaving before the eighth grade (In 1906, 14,881 left the fifth grade in New York City), these go out with still less attainments and little that would help them to earn a living and enter industrial life, ignorant and helpless, so that low-wage occupations are overcrowded and skilled laborers are very few and often have to be imported. "Is our over $300,000,000 annually spent on public education well spent?"

C. W. Larned, of the United States Military Academy,[1] says that the entrance examinations under the new standards at West Point showed distressing results and constitute an interesting and pathetic commentary on the general efficiency of public-school methods throughout the country. "They indicate a lack of thoroughness and a weakness in methods of instruction which must result in a vast waste of time on the part of a great portion of the student body. It is a saddening reflection that a child and youth should be kept under servitude in the treadmill of mental instruction for so many years of the joyous period of life, with a result as meager and inadequate in proportion to the sacrifice and effort as that demonstrated in so many of the cases under consideration. If the results obtained from these examinations are to be accepted as a criterion, the conclusion is inevitable that the ten or twelve years consumed in their production are not well spent, and that the youth in these cases have not received a fair day's wages for a fair day's work. Children and young men whose natural environment and occupation are fresh air and exercise have been cooped up for many hours in close rooms, often with inadequate ventilation and vitiated air, in cramped attitudes droning over unwelcome tasks." Out of 314 taking the entrance examination for West Point in 1907, 84 per cent failed in one or more subjects, and in theory their deficiency in one subject entails discharge, the minimum mark being 66 per cent. 56 failed in one subject only; 64 in two; 50 in three; 42 in four; 27 in five; 26 in all subjects. 66 per cent failed in two or more subjects. 237 failed in geometry; 154 in algebra; 144 in composition and literature; 129 in grammar; 73 in geography; 54 in history. As to low marks in algebra, 44 made from 0 to 40; in geometry, 159 made from 0 to 40; in grammar, 87 made from 0 to 60. 90 per cent of all were educated in the public schools, and out of a total of 351 examined, 222 failed. 82 failed in physical examinations, while 18 were placed on probation, making a total of 100 physically defective. These young men are selected sometimes by competitive examination, almost none of them haphazard, with an average of about ten years' attendance on the public schools, and show 84 per cent of failure combining the various deficiencies. They come from all over the country, and this is a state of affairs that should make the judicious grieve and our educators "sit up and take notice." 30 per cent were physically unfit. Would not ten years of body training have produced far better results?

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[1] Inefficiency of the Public Schools. N. Amer. Rev., Sept., 1908, pp. 336–46.

Marowsky[1] divides the causes into, first, those beyond the teacher's control which are, mixed population, language, and the need of assimilation, the instinct of Americans to move, the popular form of government that does not incline men to bow to law, the great difference between enrollment and attendance, lack of provision for backward classes, the shortness of the school year, the difficulty and inconsistency of the English language, arbitrary weights and measures, the tendency to regard the school as a hospital for all the failings of society. The remediable evils are, waste of time in pleasing children, outgrown methods like memorization, sentimental, feminine discipline, insufficient training of teachers, low salaries which should be increased by time of service as well as by grade. The gravest fallacy and last is the belief that children can select their own subjects of study.

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[1] Why is public education in the United States not as successful as it is in Germany? Translated by R. Tombo. Educ. Rev., March, 1907. Vol. 33, pp. 217–244. See also S. P. Orth. Plain Facts about Public Schools. Atlantic Monthly March, 1909. Vol. 103, pp. 289–297. Also S. A. Burstall, Impression of American Education in 1908. London, Longmans, 1909, 329 p. Also Walter M. Young, Defects in our Public School System. Education, May, 1906. Vol. 26, pp. 526–533. G. Stanley Hall, The Case of the Public Schools. Atlantic Monthly, March, 1896. Vol. 77, pp. 402–413. F. W. Atkinson, The Case of the Public Schools, ibid., pp. 534–544. Confessions of Three School Superintendents, ibid., 1898. Vol. 82, pp. 644–653. Hugo Münsterberg, School Reform. Atlantic Monthly, May, 1900. Vol. 85, pp. 656–669. Charles De Garmo, School Reform; a discussion based on Professor Münsterberg's paper, in the Atlantic Monthly for May, 1900. Educ. Rev., Feb., 1901. Vol. 21, pp. 118–131.

Once we were in earnest with education. We felt it a gigantic and hazardous task to establish and perpetuate democracy. It had never been proven that the people could rule themselves and we thought republican institutions depended upon the right training of future citizens. Not industry, self-support, nor the church, nor the home, were at stake, but good government of, by, and for the people. Citizenship was the goal and we trusted chiefly to the school to support the state by qualifying for intelligent suffrage. As our confidence in self-rule grew, the seriousness of education, perhaps not unnaturally, abated and many other ends entered and competed. Later, however, as foreigners have thronged our shores, we have again begun to realize to some extent the pristine purpose of our fathers, although now the state-conserving function of the school is more for new arrivals and is concerned with the elementary three R's, with cleanliness, health, and frugality. Once the typical citizen was the independent small farmer, rearing a large family on moderate means, but alert, intelligent, intensely interested in all public affairs, with considerable time for reading, debating, and town meeting. He was honest, fearless, pious, and industrious, his own master, and very conscientious concerning his public duty. Now, the majority of our citizens are urban. They are employees working for wages, with little interest in their occupations as such, and with no schooling on the average beyond the sixth grade. They are prone to ask concerning a public measure only what there is in it for them. Most of them have been here only a generation or two and know little or nothing of our history or the spirit and traditions of their adopted country. These immigrants have come not for greater religious or even civil liberty, but have been drawn hither by the hope of greater gain. Most of them get from the school only the ability to read, write, and cipher a little. They need to be taught patriotism, integrity, honesty, hygiene, and of this they get but little. To many our language is new, and many must be taught the very rudiments of decent living. Thus the problem of our pedagogy is now very different from what it was and in ways to which the school has not yet learned to respond.

The ideal school program of the future, as I conceive it, will be pervaded by the ideals of the regenerated kindergarten, as described in Chapter I, which will extend to the age of at least seven, and better eight, with very little confinement and sedentary work, pervaded with the best that plays, playground, nature study, and stories can give, with real language work, a little drawing and the few rudiments of industrialism, the cultivation of habits, deportment, cleanliness, obedience, training in the basal elements of morals and religion, and with no special attention given to either of the three R's, which, however, need not be prohibited. The nascent period for none of the three comes so early. They should gradually come to the foreground at about eight and be taught intensively for short periods, avoiding even incipient fatigue, but for periods repeated at least twice daily and with frequent pauses between time, with relaxation, freedom to move about, and recreative features. The present first two years in the orthodox graded school are often not only wasted, but worse than wasted. On the above plan, however, there will be little to unlearn. Penmanship, e. g., would not be precociously and chronically bad because taught too early. The ability to read would be acquired with far less strain upon the eye and the mind generally and would come easier because the powers involved would be more mature and adequate. Number work would take a much faster pace and perceptible progress would be not only weekly but daily. Thus, the first two years of school need radical reconstruction with a new program. They should be largely devoted to filling up the mind with ideas and facts, so that the school may have something to work upon, rather than trying merely to fill a vacuum. The four years from eight to twelve are preëminently the age of drill. They ought to be sacred to habituation, to discipline, training, obedience to wise authority. Children during this quadrennium are usually at their best in health. They can endure a good deal of work and even strain. The period seems to some to represent an ancient plateau in the early evolution of the human race on which it lingered a long time, so that what has been later added is like a new story built on old foundations. Children need to be broken into those elements of culture that require a good deal of mechanical memory, that are arbitrary, that have no reason in them, but are against all reason, like our spelling, weights and measures, our curious dual language with its older Anglo-Saxon elements for the masses and terms from the alien classic tongues superposed for technical culture. There should now be little appeal to reason, for it exists as yet, if at all, as all our studies show, only in the germ. Children understand many things far better if they are not explained to them at all, for this is often a source of muddlement. They should learn to accept commands from persons whom they respect from a sentiment of loyalty and confidence. If reasons are demanded for the conduct required, it should be enough to simply respond that this or that is best and will be seen to be so later. Thus *Dressur* should be the all-pervading aim and method. For essentials or for the staple work of the school which all should be required to take, it should not be necessary to sweeten the decoction much by an appeal to interest, although this, to be sure, has its place. School should be made work, and not all play. There should be drudgery, effort, hardness in it, and not too much pleasure or recreation. Again, the teacher should teach with might and main and set the pupils an example of enthusiasm, alertness, and book work should be reduced to a minimum. There should be little lesson setting and study time. The more difficult work should come earlier in the day and the time of sitting in the schoolroom should be kept as small as possible. Promotion should be frequent upon the teacher's judgment and responsibility, and it should always be by topic, so that each pupil should be where he can get the most in each subject. The hours spent at school should not be reduced and should be broken at intervals by gardening, stories, play, in which there should be examinations, talks, industrial training, nature and language work, etc., which should run on a slacker belt, as opposed to the tension and pressure, which should be at its maximum in teaching the three R's. The ideal school should run at least a part of the day throughout most of the year and the long vacation should be greatly reduced.

With the dawn of adolescence a new régime of liberty and an appeal to interest should slowly supervene in place of mere habituation. The age of fruition has come wherein pupils should profit by the mechanical drill and drudgery that preceded. We have an opportunity in the demarcation between grammar- and high-school grades, which comes at the very early teens, to emphasize this distinction as the European system of education does not and cannot do, but this opportunity we have utterly failed to utilize. Now the floodgates of heredity are often very suddenly thrown open and new zests and transforming motives seem to change the very warp and woof of the soul itself. The vocational motivation of some sort must now come in, or else life soon becomes a desiccated thing. Here the too current ideas concerning liberal education have done incalculable and irreparable damage. Every boy with anything in him worth educating is now animated by the ideal of some adult goal, be it scholar, artisan, statesman, or business man. His zests may even be unconscious and yet dominate and inspire his work. The acquisition of general knowledge with the idea that it will be somehow and some time useful is as insane a perversion as the *Sammeltrieb* that prompts not only patients but sometimes tolerably normal people to hoard everything in the hope that it may some time be of use. Thus, some consideration of the vocational destiny of the pupil must now supervene.

I believe there are young people—not so very many of them—who would be better off in mind and body if they had no scholastic education. Ignorance is often a prescription or a poultice, and if the choice were between knowledge of even the three R's and soundness of body or mind, we might well say, better lose the whole world of knowledge and save one's health, for what shall one give in exchange for it? I have not time here to characterize the ideal school in detail.[1] Indeed, it is perhaps like the invisible kingdom of God, not made by hands, but ideal in the heavens, from which we can hardly expect it will come down to earth ready made. Every feature of it exists and has been proven practical somewhere, and this fact shows that although it now exists nowhere, it might tomorrow be realized anywhere. Some critics hold that we cannot reform a well-established school system without reconstructing the very social state in which it exists, and that before it can be purged of evils and abuses we must have a new commonwealth and a radical revolution, not perhaps sudden, but profound and far-reaching in its consequences. There is really nothing so practical as the truly ideal, for that is the goal toward which we must work. The ideal which has animated all my own feeble educational endeavor, and without which I should be without hope in the world of pedagogy, is the reconstruction based not so much on existing conditions in society as on child nature. It is one thing to fit the child for a preëxisting social condition and a very different thing to develop all his own latent powers to their uttermost and trust to this development for all future reforms. Holding, then, as I do, that childhood has in it indefinite possibilities that are some realized, some repressed, crippled, nipped in the bud in a way for which home, school, and church must share responsibility, and that if every spring of possible knowledge and power were touched, even by the lightest suggestion at its nascent psychological hour, we should in a few generations develop a superior race of men, we have in this faith in the possibilities of childhood and youth the most central and impregnable of all the fortresses of optimism.

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[1] See my "The Ideal School as based on Child Study." Proceedings of the N. E. A., 1901, pp. 475–88.

Our school system is not like the dead, of which we must speak nothing but good (*nil nisi bonum de mortuis*), but it is young and growing rankly and needs and should profit, like strapping boys, by occasional chastening. We must make up our minds to spend vastly more for education than we do at present and to get our money's worth for it all. There is no such economic investment for a nation or community. If we are to restrict the time and attention given to the three R's, we have now before us the task of broadening out our scheme into countless special schools, for their day has come. These are most extensive, but would be most profitable of all. There must be more playgrounds, gardens, equipments, and apparatus of every sort, and hours devoted to really educational activities in these newer and more variegated lines must be increased. Perhaps all schools in the future will be in the country and each with its annexes will be a kind of boy or girl city. If some of the evils in our present scheme seem deep-seated and almost insurmountable without a new dispensation of the entire scheme, others of those above enumerated are in the process of rapid amelioration.

Herbert Spencer well said that education included all values and was that in which everything else culminated. The only true, ripe, or finished philosophy or psychology is that of education. Unhappily, metaphysics from Kant to Herbart has absorbed much attention and contributed very little indeed, save a few grandiose platitudes, to the subject. All in all, it has perhaps distracted and mystified almost as much as it has helped. Laboratory psychology has also contributed a few precious conclusions, recent as is its origin, and more is to be expected of it. Meanwhile, experimental pedagogy is looming above the horizon, and although many of its conclusions are uncertain and even contradictory, it has at least settled a number of rather minor points and awakened large hopes that it will eventually contribute much to place teaching methods on a scientific basis and make the work professional. Genetic psychology has so far done much more than all, but it, too, has only begun its contributions. It has marked a Copernican revolution by placing the child in the center and showing how buildings, matter, methods, everything are measured by what they do for childhood. The fact is, however, that all the philosophy and psychology in the world to-day are not large enough to constitute a true philosophy or psychology of education which may be conceived as a mode of accelerated evolution. Educational serviceability is the very highest criterion by which to judge the worth of any or all the sciences that center in man. Teaching, thus, cannot think too highly of itself, cannot make too large demands upon the public purse, if only its demands are wise. The wiser of our rich men are all learning that the highest consecration of wealth is to its cause. Even from this point of view the general outlook is hopeful, for it is only the early morning of our educational day. But our great need and hope to-day is a better knowledge of the child.

Like other public expenditures made by cities, states, and the nation, those for schools are far less economically made than those in private business. Hence, the administration of our school system, compared with that of the great corporations, is wasteful and extravagant, and there is constant complaint of sites unwisely chosen, contracts loosely drawn, badly placed and evaded, so that structural and often other defects abound. Private interests are so alert, insightful, resource-ful, and ably served that where they conflict with public interests, represented by half-competent, half-hearted inexpertness, it is always the latter that loses. Corporations find a man of pronounced ability and experience whom they can trust and then give him often almost unlimited power. School boards select a superintendent from a long list of waiting applicants, perhaps by a dangerously small majority, and are prone to constantly watch and interfere with him in the discharge of his duties. He rarely has a free hand to select teachers and text-books, and often comes to shirk these responsibilities, and may even come to love his chains. Let him dismiss a teacher, however incompetent—and the teaching force of every city abounds in such—and it is often a toss-up whether he or the bad teacher goes. For it is the worst teachers who are prone to give most attention to fortifying their positions. Even the colleagues of the incompetents would very likely rally to his or her support. Is it the best or the worst teachers, as a rule, that leave the profession yearly, and which are those who stay longest, on the whole? If only the worst went and only the best stayed, how different all would be! To-day academic administration is being subjected to drastic criticism for unbusinesslike methods, but the public schools are far more in need of such overhauling. Why will not some millionaire establish somewhere a model, ideal school, to show the world once and in some favored spot what can be done; a school wherein all the best conclusions of scientific pedagogy and of experience can be seen in operation, whence a new dispensation of education might be diffused. This is now not only entirely practical, but it is one of the greatest needs in education, to have one institution that can show what can be done object-lessonwise. For many years I longed to begin such a school with abundant means and liberty, starting with the lowest and advancing one grade each year, but as I realize the magnitude of the problem, I have also realized that to do this would require a long and concerted effort of wiser and better men than I—yet it should and could be done. Such a school could thus be built up that would be visited almost like an educational holy city to be prayed toward, as devoted Mussulmans pray toward Mecca, and which would be not only the cynosure of all eyes, but the center of reconstruction, till the lump was leavened. At least half the time, labor, and expense now spent upon the three R's might at once be saved and the rest devoted to other and no less useful acquisitions. While we should profit by everything helpful from "abroad," our problems are *sui generis*, and we should never forget that they must have an independent and original solution. As our republican-democratic government is built upon the rights of man, so the school should be based upon a new interpretation of the rights of childhood.

CHAPTER XXIII

THE AMERICAN HIGH SCHOOL

Our high school utterly unique in beginning so late—A people's college—Dropping out—Fitting—Stands for a social class—The hardest of all institutions to reform—The necessity of extending the high school downward to the sixth grade more than extension upwards—At present they are overrespectable, relatively ineffective, mechanical, and lacking in earnestness—Pupils are both too young and too old—The Latin incubus—The trouble with high-school English—Algebra—History—Modern language—A plea for continuing the reformed geography of the last chapter in a new high-school dispensation of geology, chemistry, astronomy, and anthropology—Lack of equipment of the high school.

The American public high school is one of the most unique of all educational institutions. It receives youth well on in the pubescent ferment, instead of a few years before it begins, as is the case in Europe. Hence, it does not represent what the rest of the world means by secondary education, but only the later years that are elsewhere devoted to it. It subjects boys to women teachers, another novelty, and is coeducational, which is yet another exceptional trait. Twenty years ago it was having a long and severe struggle to get itself established as a secure and integral part of the public school system, because many denied that the entire community should pay taxes to support an institution for the favored few. This battle, however, has been triumphantly won, and the last decade or two have seen an amazing multiplication of them throughout the country. They are often magnificently housed, and the topics, number, and qualification of the teachers, and not only the absolute, but also the relative, number of pupils has rapidly increased, as has their *per capita* costliness. Those who attend come, as a rule, from better homes, are better dressed, have more spending money, are in school less hours, have more capacity for scholarship, and are destined to occupy better social and economic positions than those who stop in the grammar grades. Most teachers are college graduates and a small but increasing number have university degrees. The term people's college, often applied to the high school, has great and increased significance. A very few grant degrees, but the spirit and methods of the academic grades pervade them more and more; some teachers lecture more or less and require note taking, and a few affect methods of research for the callow fledglings who frequent them. Student fraternities, and still more athletic organizations, to say nothing of graduating fashions, more and more ape those of the college. This imitative tendency, however, has its limits, due to the fact that most college students board and most high schoolers live at home and are more or less subject to their parents out of school. One great interest of most high-school faculties is in fitting for higher institutions—this was of old the prime purpose—although a steadily diminishing proportion of their pupils ever attain this goal. Not a few of them do their work so well that their graduates do not need to work hard during the first year or two of the academic quadrennium, so that the best of them learn the habit of lolling and dawdling and drift lazily and easily along. The high school has profited almost nothing by the new methods of promotion, which are so beneficent in the grades, by which a bright pupil can shorten his course, and, worst of all, some of the recent concerted prescriptions of the college practically require a full high-school quadrennium, as if the amount of work could be measured by the number of years devoted to it. The chief mark of the high school, especially in larger communities, is its conscious respectability and complacency. It is assumed that the high school contains the best young people from the best homes under the best teachers, and the average parent is proud to have a child there. It is freer from the influences of the superintendent, who is often a less able and more poorly paid man than the high-school principal. With a better social position than the teachers of the lower grades, protected and sheltered by the college which has done so much to shape it to its own will, and of which it is often the pampered pet, its representatives usually feel immune from all criticisms of the school system as a whole, and are more secure in their positions. The college will not and cannot criticise the high school if only it does its own bidding and fits aright, indeed is resentful if others attempt to do so, and few are competent. Hence it comes that it is probably not too much to say that the high school in this country has never had any critical survey that was at once intelligent and impartial. The principal dominates his corps of teachers less than does the grammar master. The great movements of reform which have over and over again materially changed the character of grades below and above leave the high school little affected, so that it is the stronghold of educational conservatism, less changed in its spirit and method than any other part of the system. This, of course, is especially true of the older classical type which has been more and more superseded of late in this country by the English, while the industrial high school has lately come in as a third type, still more remote from the old ideals.

W. McAndrew[1] says that high schools ape colleges and their aristocratic ideals. When the courts authorized towns to levy general taxes for high schools they became the people's college and should then have broken away from academic dominance, but this they failed to do. Hence since the seventies they have been under progressive criticism. They have never become democratic. While the college should produce a small patriciate of men of high breeding and attainments, the high school is now a totally different matter and should have cut loose from its historic connections as a college adjunct. High-school teachers should be obtained by promotions from the grades and not be all college bred. The course of study should not "come down like stalactites from above" but be built up from below. Few ask what is the best thing these young people can do, but all are intent upon what the colleges require. Preposterous and impossible standards have been maintained for forty years. We set a high mark and then accept sixty per cent, and the practice of discounting complete work is common in nearly all the colleges. In his "Mind in the Making" E. J. Swift[2] gives thirty pages of leaders, thought failures by their teachers. The talk about deep, broad, accurate scholarship in the high school is "the veriest cant." The needs of those leaving the elementary school should determine everything. Even Draper, conservative and mechanical as he is, says the high school is "wasting the lives of children" and that "there is a sad lack of a definite aim and purpose about it all and our plans do not rationally meet the conditions." Thus the high school should drop its idea of being an institution apart, with its own cult, traditions and top-loftiness, and serve the community and fit the young for life. D. S. Jordan[1] holds that the high school does almost nothing well. Words fill too large a place, for they are easier and cheaper to teach than anything else and they make the student cut loose from real objects and lose the distinction between words and things. Realia should be made basal, etc. A. D. Weeks[2] points out the great difficulty of harmonizing the two aims of fitting for college and fitting for life, so radically distinct are they. They demand different studies, methods and emphasis at every point. We must now make the college accept any subject that the high school thinks best. No change would be greater but none more salutary. We should certainly introduce more practical topics, even if the least defensible topics, like Latin, be crowded out to make room for practicalities.

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[1] Where the High School Fails. World's Work, 1908. Vol. 16, pp. 10648–51.

[2] Mind in the Making: a Study in Mental Development. New York, Scribner, 1908. 329 p.

The Proceedings of the Middle States Association of Colleges and Preparatory Schools in 1908 stresses criticism of those secondary teachers who have done graduate work because they are too specialized, teach pure rather than applied science, and so miss a spring of interest on the part of the students. Thus they have been unfitted for their work. Balliet said "not one in fifty of the men and women who take the doctor's degree in science or in mathematics has the least suspicion of the problems before him when he begins teaching in the secondary schools." This is still worse in literature, which is too philological and critical. The lecture method is not for the high school. Much teaching is over the heads of the pupils. Texts are theoretical and abstract. It was said that the university had a "deleterious and pernicious influence upon the high school and its graduates should be avoided."

President Woodrow Wilson, late of Princeton, in these proceedings said "the children of the past two or three decades have not been educated." "With all our teaching we train nobody, with all our instruction we educate nobody." We do not admit this publicly but confess it when we are alone or on our knees at night. "We are on the eve of a period of reconstruction." He would have high-school pupils taught something fundamental thoroughly, with a number of accessory interests. "We have been caught in a ridiculous system where we are trying to teach a pupil everything and do not teach him anything." We have annexed vast territories of knowledge, as we did the Philippines and Porto Rico, while they remain essentially foreign territories. Thus we have "missed the meaning of education, forgotten to assemble its elements and to concentrate its methods." One speaker at this conference urged the abolition of the very term preparatory school. E. L. Thorndike[1] shows how impossible it is to uniformitize the high school and thereby suggests how impractical are all efforts to standardize its work. Of the over seven thousand public high schools of the country more than half had but one or two teachers in 1904.[2] Many had from five to ten pupils. Such schools may be very valuable in small communities, though a four years' course should not be required. "There is no typical high school in any progressive sense of the word." It is by no means clear that the great city high school does better for its pupils than does the small school. Hanus[3] warns against high-school teachers who are overspecialized and devoted to research. "The greater the degree of specialization the greater the danger is." Thus doctors of philosophy are often regarded with suspicion. He should overhaul, if not reacquire, all his knowledge from a teacher's viewpoint. He should always have professional training and not learn by floundering, and this training the college should give. The high school is a social institution, yet Hanus insists that the high-school teacher should have graduated from a "four years' high-school course" with a certain program, which is described. Kilpatrick[4] so believes in departmental teaching that he approves its establishment within the last five years in 150 elementary schools of New York. The virtue of the single teacher plan, which is greater in the lower grades, must not be lost and each pupil must be assigned to a class teacher. Departmental methods greatly enrich teaching and are applicable to about every kind of school. Each teacher selects a specialty and instructs others in her own, receiving in turn, instruction from others. Thus peripatetic work is not necessary. R. P. Halleck,[5] reporting for the Committee of Seventeen, advises that all high-school teachers be trained in a group of subjects but focus upon one within that group, e. g., history economics and sociology, and that advanced study be required on the history, psychology and principles of education, and special methods, management, organization and hygiene as related to the high school. He, too, advises a minimum requirement of graduation from a four years' college course and a four years' high-school course.

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[1] The High-School Course. Educational Review, Nov., 1908. Vol. 36, pp. 372–376.

[2] The Two Aims of the High School. Education, March, 1909. Vol. 29, pp. 420–421.

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[1] Neglected Aspects of the American High School. Educational Review, Apr., 1907. Vol. 33. pp 245–255.

[2] In 1909 there were 9,317 public high schools which sent in reports to the U. S. Commission of Education.

[3] Professional Preparation of our School Teachers. In Beginnings in Industrial Education. Boston, Houghton, Mifflin & Co., 1908. 199 p.

[4] The Adaptation of Departmental Teaching to Elementary Schools. Educational Review, Apr., 1907. Vol. 33, pp. 356–367.

[5] Professional Preparation of High-School Teachers. School Review, Sept., 1907. Vol. 15, pp. 489–507.

Programs and discussions in most of the state and interstate high-school associations of this country have been in recent years in very large part devoted to the arid, unpedagogic questions of college entrance requirements, examinations, credits, points, etc., which are really only the creaking of the unoiled part of the machinery where friction between college and high school occurs which gives factitious interest to these dismal and unprofitable topics. Since college entrance certificate and other boards were organized, this has greatly increased. In New England, this occurred in May, 1902, with nine and later twelve institutions. The high-school principals were notified that after January, 1904, no certificates would be accepted from any school which had not been approved by the board, which had power even to withdraw its approval. Up to November, 1905, 502 schools applied, of which only 220 were approved for three years and 48 put on the trial list and 136 refused approval. Before this board was organized, there were 534 New England schools on the approved lists of one or more of its ten colleges. Of these at a recent date, 140 had not been heard from, 100 were only on one list and 27 on two. From this point of view, traveling inspectors, state aid for small schools, uniform state examinations for entrance, etc., have been advised.

C. T. Carey[1] says there are valid objections to every conceivable mode of admission to college. The Michigan, or diploma, plan has its advocates. Wisconsin supervises not by university but by state department of education, which may withhold aid from those below standard. The Board of Regents can determine entrance qualifications. Following the lead of these states, others have evolved a system of inspection and accrediting. This makes it hard to do justice to courses for which colleges give no credits; also where there is one course for those going on and another for those who are not. Some think the decision between these two courses should come very early, some late. The mischief done by the principal where fitting for life and fitting for college has been the same has been almost a national calamity. What best fits for life ought to best fit for college, but in point of fact, the difference between the two is almost incommensurable. Another scheme is to multiply subjects on which credits are given. Some states have boards, perhaps headed by the president of the state university, that determine what the high school shall do and how, as in Minnesota. This is a vicious device for enabling the university to control everything. Some other states are moving toward the Wisconsin idea of a double-headed inspection. Academic requirements are often very technical.

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[1] Proposed Changes in the Accrediting of High Schools. School Review, April, 1909. Vol. 17, pp. 223–229.

The state university should never control, but should rest upon the secondary schools and develop from below up. Inspection should be independent of the university and should aim to make schools meet modern needs. Nothing should be standardized, and it should make no difference to the university whether any one study or group of them has been pursued or not. The one vital thing is whether or not the student has the proper degree of training and efficiency to profit most in the university. The university must "release its grip and allow the secondary schools to develop. They ought to be permitted to develop freely from within and not be forced into the Chinese shoe of college entrance requirements." When this is done, both institutions will profit greatly by the change.

W. Orr[1] severely criticises college requirements, quoting Dean Sabin of Harvard who says "we are making, probably unconsciously, a false claim as to our requirements." The faculty merely determine the number of points, viz., 26. "We do not publish in the catalogue the terms on which we really admit." A boy with 26 low-grade points may be admitted on condition, or with 20 or less if the grade is good. Boys who pass 20 or even 22 points at low grades are refused, while those who pass less with high grade are admitted. "We do not admit on any specified number of points." Even the opportunities of the boy in the past are considered. A candidate for A. B. might be received on good work in seven topics with a total of 2,900 recitations. No boy who can do well in a college should have its door slammed in his face. In women's colleges, examination is generally used to restrict the size of the entering class. By admitting on less than 26 points, Harvard recognizes that the principal of her requirements are excessive. The high school now has to meet the sum total of all the requirements of all the colleges to which it sends graduates, for it must fit not for one, but many. The size of this burden is seen in the fact that Boston University offers nine sciences, Philadelphia one, and in 27 colleges there is a total of twelve sciences. Every college has its peculiarities of topic or method and is proud thereof. Thus the principal at least must be an expert on college preparation.

F. W. Moore,[2] assuming that not less than 14 "Carnegie units" in certain staple subjects may be accepted as the standard requirement of entrance into colleges, asked how far the southern schools would soon meet these requirements, sending his questions to 200 of these schools, nearly half of which answered. From these, it appeared that the length of the school year was from 36 to 40 weeks, recitation from 40 to 45 minutes and the weekly periods less uniform. Still units could be approximately computed. Of 73 schools, only 4 offered less than 14 units and some offered 26 or 28, the average being 18¾.

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[1] The Point of View of the Preparatory School. Education, May, 1909. Vol. 29, pp. 551-560.

[2] College Preparatory Work in Southern Secondary Schools. Vanderbilt University Record, Jan., 1908.

H. A. Hollister[1] found that 11 of 15 central and middle state universities were inspected regularly. Only in Minnesota is there no participation of the state university. In its first stages, the movement rather followed eastern tradition and in many places the high schools are increasing their function as fitters. Preliminary standards are needful before inspection, but the school ought to take the initiative. The points are generally the number of teachers, length of school-recitation periods, material equipment, training of teachers, good progress, etc. With the inspection should also go an annual conference between the university and the school at the expense of the former. Schools just approaching eligibility should be simulated. Sanitary conditions should be taken into account.

F. E. Bolton[2] studied the laws of all states on high schools, the most of which do not distinguish the high from other schools. There is no law to prevent a graduate from a grammar, teaching in a high school. Colorado, however, demands that all who teach in the high school shall take examinations covering all the branches. California has the highest standard as to qualification, demanding, for all, the equivalent of a diploma from the state university and courses in pedagogy, with a list of institutions recognized. Iowa has no uniformity. The Massachusetts laws do not specify grades of certificate for its 262 high schools with 1,820 teachers, although in fact 1,410 of them are college graduates. Minnesota demands of every high-school teacher the first-class state certificate based on either a college diploma or an examination. Graduation from a pedagogic department in the state university entitles to two years' teaching, at the end of which the certificate must be endorsed by the president of the university or the superintendent, when it becomes a life certificate. New York now accepts training-school certificates, state certificates, normal diplomas, and college graduates are given a professional certificate for two years, which is made permanent if they pass an examination in Psychology, History of Education, etc. Wisconsin has two grades, for five years and for life, gained by examination or the countersigning of diplomas of the state normal schools, colleges or universities. In other states, life certificates are recognized on recommendation of the board, a unique and salutary plan. The diplomas granted on completion of the elementary course of the state normal schools qualify the holders only for positions as assistants in four-year high schools or as principals in preliminary schools. Some states specify professional requirements, e. g., New York requiring besides graduation, educational psychology 90 hours, history and principles of education 90, methods of teaching 60, observation 20, a total of about seven hours a week. Some besides graduation require professional work. There is now a strong movement for more professional training of high-school teachers in universities.

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[1] Some Results from the Accrediting of High Schools by State Universities. Education, Nov., 1908. Vol. 29, pp. 133–139.

[2] The Preparation of High-School Teachers. School Review, Feb., 1907. Vol. 15, pp. 97–122.

From a careful Y. M. C. A. report of a Committee on Fraternities and Social Life in High Schools[1] the conclusion is reached that most of all fraternities are "exclusive, selfish and harmful." Their effects have been so dangerous that school authorities are almost uniformly opposed to them and some states have prohibited them by law. Secret societies in high schools, we are told, should be supplemented by clubs, for at present they are a menace to the equality of students and destroyers of efficiency. Of course literary societies and scientific clubs under school auspices are looked upon with favor. Ladies' nights, if suitably patroned, are commended.

Chief and oldest of secondary schools in England are the so-called public schools: Winchester, 1387; Eton, 1440; Shrewsbury, 1551; Westminster, 1560; Rugby, 1567; Harrow, 1571; and Charterhouse, 1611. These are the richest and costliest schools in the world for boys from ten or eleven to eighteen or nineteen. All are boarding schools with from 400 to 1,000 boys each, and are nurseries of English character. Their methods have often been studied by other nations, but never successfully copied. The intellectual training here is inferior to that of the best *Gymnasia* or *Realschulen,* but they are cherished by English conservatism. They are organized in a Headmasters Conference, probably the most influential educational body in England, which at first held aloof from the headmasters representing secondary schools supported by the state. Graduation from these schools admits to any university with no examinations and the association of these teachers has recommended not a few changes in the universities, such as in 1890 the abolition of compulsory Greek at Oxford and Cambridge. Conservative though these schools thus are, they are progressive, provide for their own graduates in the university by various stipends, but the universities have no influence upon them. They take the pupils when the masters send them, and take all who are sent without question and with the implicit confidence that the masters know the boys best. Some of these masters have very large incomes, engage and discharge teachers, conduct all discipline and finances almost as if they were their own private enterprise. Graduates are watchful and alert and mistakes are very rarely made in the selection of a head. Most professors would be flattered to become headmasters and there are far more good professors than good masters. The number of bishops lately chosen from these masters shows their worth. There are now about 40 schools in England and Scotland included on the list as public schools, although only nine were investigated by the Clarendon Commission of 1862 and but three—St. Paul's, Merchant Taylors and Dulwich—which are near London, are day schools. The world knows the great attention here given to games. Eton has two professional bowlers to teach the boys cricket. They are examined in swimming before they can go on the river, and the school gives prizes. Nineteen games were going on at once at Eton in which a visitor counted 450 boys. Eton has its own style of rowing as Rugby has of football. Lazy and weak boys have to play. The master is often coach. Eton has over 50 Fives courts. By the dogged perseverance in this way, as Wellington said, Waterloo was won. Tenderly reared boys are thus hardened and given traits of leadership. There is a great variety of games, racquet, hockey, hare and hounds, golf, rifle shooting, boating, fencing, boxing, shop work. Harrow compels every boy to play football. Most tolerate and secretly encourage fighting for cause. Fagging, stripped of its evils, is beneficent. Horseback-riding is common. Gymnasia are provided, but games preferred. Special funds for prizes stimulate competition. Some of these games go back to the beginning of the school and their origin is unknown. Both the games and the schools are in a sense national. Graduates are breezy, hearty, full-blooded, with all the freedom of boydom, with good muscle habits, courageous, sagacious, resilient under defeat, able to endure pain and punishment, with a keen sense of honor, magnanimity, sportsmanship wherein almost no factor of will training is absent. Perhaps sedentary book work, if excessive, does weaken, but precocity and manliness, as opposed to effeminacy, are developed to counteract these tendencies. By their slow development, these schools have been molded to fit the needs of British adolescents better perhaps than adolescent needs are met anywhere else in the world. Here men have builded wiser than they knew.

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[1] Boston, February, 1909. Not published, but can be procured of Preston B. Kuth, 167 Tremont Street, Boston.

The schools that we should call public were, in England, till lately held to be a makeshift for poorer parents. The Acts of 1869 and 1870 allowed exclusion from religious service for all whose parents desired, and offered equal opportunities for all classes. Slowly boards arose by public election to furnish funds and the people began to feel the school their own. The Acts of 1889 and 1891 provided generously for increased scientific and artistic training befitting the smaller endowed schools under the Charities Commissioner, which represented the traditional type of British education. But secondary schools cannot be dealt with apart from the bigger problems of national education, which were so large that Parliament long hesitated between the two types, that of the old rich public schools and the board schools, while middle-class boys could start their preparation in various scientific schools supported by industrial interests.

The reformation of secondary education in France[1] began with six volumes of preliminary evidence in 1896, which was the broadest investigation France had ever known, for all classes were consulted. In 1902, the Minister submitted proposals which the Council and Deputies approved, and then the public with the greatest earnestness tried to recreate a vital organism of national life, of which the secondary school was an important center. Many of the problems, of course, were common to all institutions. In France, the bifurcation of classical and modern practical secondary schools has been developed almost to dualism, the *lycée* and the colleges having their own baccalaureate. Although Prussia only began a reconstruction of its secondary system in 1890, it was really the first to radically revise it as expressed by the Kaiser in November of that year to the effect that classical and *real* education were of equal value to the culture of the mind. This France did not recognize till 1902. Both of their lines of secondary instruction last seven years, with two cycles, one of four and one of three. Whatever topic is, then, thus pursued, the young baccalaureate goes on with equal rights. The first cycle allows two options with or without Latin, or Greek, and has three classes of pupils, Greek Latinists, half classicists and moderns. The second cycle has four groups—Latin-Greek, Latin plus a modern language, Latin and sciences, and modern language and science. There was great opposition to overcome, but no one now fears that one system will kill the other, as in Norway. At the end of the first cycle, the boy can enter business and yet there is no break. Here, too, secondary education was long in dignified isolation *is* for the *bourgeoisie* and *is* excessive. Mixed congresses for primary and secondary teachers failed and so has the effort to train primary teachers in secondary schools and in universities. The primary teachers thought this an effort against a true democracy by infecting it with the upper class spirit of the secondary schools, even though they recognized that the primary teachers needed better training. In fact, the lower classes of the secondary and the upper of the primary schools differ only in that the former has a modern language. Perhaps all primary training should be suppressed in secondary institutions. Ministers have been charged with supporting the two, and France has not built up, as have the Norse countries, the secondary, on the basis of the primary education. Up to 1902, the secondary baccalaureate had to be passed before a university jury but now secondary teachers are admitted to it. Universities reach beyond these secondary schools and have examinations, lectures, and admit primary teachers, but the remaining isolation of the secondary grades is doomed.

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[1] Problems of Secondary Education in France, by W. H. Friedel. School Review, March, 1907. Vol. 15, pp. 169–183.

John Strong[1] describes the development of secondary education in Scotland from the twelfth century through the Parish schools to 1907. The admission of state-aided schools to the leaving certificate examination was the most important stage in approximating the higher development of state-aided class to the higher class schools and was a definite step in the direction of the unification of secondary education in Scotland by the Committee of 1892. The next year every important high-class school accepted grants so that its buildings, equipment, teachers and curriculum have come under the control of the Scotch Education Department.

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[1] The Development of Secondary Education in Scotland. School Review, Oct., 1907. Vol. 15, pp. 594–607, 671–683, 718–730.—For Germany, see Oskar Steinel. Ein pädagogischer Reformvorschlag für Gymnasien und Realschulen. Zeit. f. lateinlose höhere Schulen, Heft 7, 1908. Bd. 19, pp. 253–254.—Richard

R. L. Packard[1] gives an interesting account of the reform of secondary instruction in Peru. In 1905 the ministry asked for criticisms of the law of 1902 regulating grades of instruction, and responses to the request were published in 1906. From this report, Latin America seems very alive to the necessity of preparing for practical life. The consensus of opinion among teachers was that the course was too crowded and that five or six years must be given to it, in the latter case with bifurcation after the fourth year, one course to fit for life and the other for the university. The modern spirit was very conspicuous and many of the reports from teachers make no mention whatever of Latin, Greek, æsthetics, or even of the humanics. Bifurcation originated in the impotence of the old classical course to fit for practical careers and from the inability of modernism to give genuine humanistic culture.

E. J. Goodwin[2] says that the origin of our system of high schools goes back to 1784, when a board of regents were given control of the two academies then existing in the state. The local academy was really doomed as early as 1853. Now the state department controls courses of all secondary schools that are members of the university of the state of New York. This control is in several ways. (1) Before a junior academy can be admitted and receive money it must have $100 worth of apparatus, $200 worth of books and maintain an approved course of studies, including English, mathematics, and sciences, and as it advances up the grade these requirements are added to. To encourage schools to come in, the Board of Regents annually gives $100 and about two cents a day for each day's attendance for qualified academic students. (2) The state further controls the curriculum by paying tuition of rural students since 1903. To receive these students certain requirements must be made. In 1896–7 there were nearly 10,000 of these boys and girls

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Berndt. Bemerkungen zur Organisation der höheren Schulen. Zeit. f. lateinlose höhere Schulen, Heft 8, 1908. Bd. 19, pp. 273–282.—Mayer. Schulreform und Reformschulen. Zeit. f. lateinlose höhere Schulen, Heft 9, 1908. Bd. 19, pp. 314–325, Heft 10, pp. 353–360.—Guy M. Whipple. Guide to High-School Observation. Syracuse, Bardeen, 1908. 42 p.

[1] School Review, March, 1908. Vol. 16, pp. 190–197.

[2] New York System of Secondary Schools. Educational Review, May, 1908, pp. 491–500.

receiving free tuition at a cost to the state of $152,000. (3) In 1895 the law required that all teachers of elementary schools must be graduates from the high school or an academy with an approved course. So the commissioner determines the curriculum for such intending teachers, including English, algebra, geometry, history, biology, physics, a foreign language for two years, etc.; other topics, 23 per cent of all, are left to option. The state also inspects, and fourteen appointees traveled about through the entire school year making written reports. Some of these schools have no other supervisor. Its closest rapport is through its system of examinations begun thirty years ago. Some think these are overestimated. A number of annual examinations has been now reduced to two and three and preliminaries for admission are optional, and schools are required to use examinations only the last few years. To attain still more coöperation a state examining board consisting of college president, superintendents, principals, etc., has been organized and appoints sixteen committees to make the question papers, each committee being made up of a secondary school teacher or principal and college teacher and a representative of the state department.

R. W. Sies[1] reminds us that in four states normal training is authorized or enforced in high schools of a certain type. Wisconsin began the movement in 1875 with a demand for at least twelve weeks' training in the theory and art of teaching. In three other states classes of secondary grade in normal training are maintained by some boards not as part of the high-school work proper but with its own instructors, rooms, etc. Some would not agree with F. E. Bolton's demand that every college student take courses in education, but for the high school still fewer would demand this course for all. Pedagogy is not only at the same time vocational but cultural.

Most so-called high-school problems in this country, especially near the Eastern seaboard, are those of mechanics and not those of artists or master workmen in pedagogy. Meetings where these are discussed have ceased to be workshops of the holy spirit of pedagogy, but the air and nerves tremble with the din of apparatus and of counts, weighings and measurings of quanta of knowledge. There is need of an organized effort by those who see the situation truly, like most of those I quote in this chapter, to rescue our high schools from the Philistines of culture. These institutions should no longer be content to play an obligato for the college symphony. They should be fitted out generously with illustrative apparatus, of which they are usually so empty. The endless standardization of units and the complex devices for examination do not fit, as the simple statistics of Thorndike above show, hardly more than half the high schools of the land at the very best. Excellence is striven for by ignoring and perhaps even disparaging weaker, smaller schools, and thus handicapping them unfairly. Even departmental high-school organizations of English, physics, and modern languages, history teachers and the rest, which have of late shown what good work they might do if they trusted themselves and wrought out their own problems independently, still too often prefer to listen to a college professor who knows nothing of their special needs but who tells them *dc haut en bas* what to do and how to do it. One of their chief problems should be to articulate not so much with the college but with the grades below, which they should adjust to but not dictate to. They should be concerned that many topics of interest should not be dropped, for this results in a loss of both time and energy, and efforts well begun compelled to stop short at the door of the high school. It should be made as easy for the best grammar teachers to advance to the high school, as for high-school teachers to enter college faculties. It is not so much the abolition of the lecture method that is wanted in the high school as its transformation from monologue to dialogue or a kind of active teaching that involves constant response and is punctuated with question and answer. Again, the endowed Eastern colleges or universities are private corporations, and for that reason alone they have hardly more right to legislate for a system supported by public taxation than they would have to lay down rules for the conduct of streets, sewage, post office, and other departments of public service. The high school should be controlled by those representing the people which support them and the human element by which man judges man in society, in business, and the world generally, in all affairs, should be not excluded by the examination machine.

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[1] Study of Education in the High School. School Review, Nov., 1908. Vol. 16, pp. 609–614, 670–679.

The time has now, therefore, fully come when we must invoke the American muse of common sense and seriously ask whether the high school is doing the most and best that it could and should, or is accomplishing what the community has a right to expect from it. Dissatisfaction with the methods, matter, and results are widespread and increasing.

Let us partly summarize what has been said elsewhere along with other new suggestions:

I. In a number of centers in the West the suggestion has of late been ably and earnestly urged that the high school should be extended downward to perhaps the end of the sixth grade, by which time just about half of the pupils who enter the grades now leave. This would be a step toward the condition in the *lycée* and *Gymnasia,* where pupils enter at eight or nine. This plan, it is said, would tend to reduce the waste of the later grammar grades by offering a more attractive and stimulating course to those who now drop out. It would bring about the change of external conditions which always ought to mark the great change within, that takes place at the dawn of pubescent years, which our system now, instead of stressing as the world—savage and civilized—has everywhere done, tends to obliterate. Mankind throughout all its history has marked the faint dawn of sexual maturity by initiations, training in new modes of life, passages from the woman's to the man's camp, confirmation, etc., as befits the nature and needs of this stage of evolution. Children are now approaching maturity and are impressed in a very new and strong way by the lives of those older than themselves and by adults, and it is just this association and spur that the present system cuts off, for the boy in the upper grammar grades has no higher classmen to admire and imitate. These two evils, viz., the obliteration of pubescence and the elimination of the influence of those older, are very real and very grave evils in our system which must be remedied if we are to work with and not against nature. This scheme, too, would relieve the grammar grades of some things that have in some places been foisted upon them, such as Latin and algebra. I am fully convinced that the interests of both community and child demand some such extension downward and also that it is inevitable. Of course, it would involve some additional expense to bring boys of twelve under more male teachers and larger appropriations, but if it is needed, this change must come, however much the high school may oppose it.

Why do they and the colleges do so? I answer, chiefly because of the intense propensity of both teachers and professors to do "advanced work." This has become almost a national curse of all that section of education that deals with children beginning the teens. It has made instructors slight beginners and elements and affect ways and themes for which the pupil is not ripe, neglect drill and foundation work, specialize precociously, and sometimes ape even the research methods of the academic seminary and laboratory before their time. Our teachers would only gape and stare if told to emulate the spirit of the gifted Leipsic doctor of philosophy who, on leaving the university, deliberately devoted his life to teaching elementary classes to read, and when he died, at a good old age, had acquired a skill and dexterity in this art such as perhaps no one else ever possessed and had brought vast economies into the world in that most precious of all materials, human nature. This was because he knew, what our teachers rarely do, that there is both an art and science of pedagogy, and with this knowledge came to his mind the realization that it had its own course and was glorified in this work. He felt that his specialty and eminence in it were of equal rank with that in any other topics. He understood the results of the study of child nature for this age, and so was conscious and proud of the power that this knowledge gave him to work upon this most plastic of all human material. When the proposition is made, as it often has been within recent years, to give over the first one or two years of the college to the high school, and thus to extend it upward, high-school authorities are delighted, and some will already compass sea and land to send a bright boy to college with advanced standing. If the bachelor's degree could only be demoted and given at the end of a kind of high-school post-graduate course, the passion for doing "advanced work" on the part of teachers would find great satisfaction. I am, however, for one, convinced, on the contrary, that our entire system would be vastly improved if half the college teachers could be transferred into the high school and half those in the high school to the grammar grades, and that it would be weakened by the reverse of this process, for far more teachers are now instilling topics by methods which are too advanced not only for their pupils, but for their own attainments as well. The college has more need of expanding downward and easing requirements for admission, as things are now, than for raising them. It should encroach upon the high school, as I urge the latter should do upon the grades, and drop its affectation of university works and ways. The better the teacher commands his subject, the lower the grade in which he can excite real interest in it. Agassiz would build on no other man's foundation, but laid his own and wanted pupils with virgin minds. He loved to begin at the beginning and felt it no disgrace to do so. The first task, then, of the American high school should be to review the work and remedy the defects of the elementary schools. It is almost no matter how low it has to go down to do this. In the chapter on Defects of our School System, and elsewhere in this volume, I have tried to show how very frail is the average child's knowledge of even the three R's. The high school should set an example to the grades of good teaching in their own subjects and review, deepen, broaden, strengthen everything, take up the whole burden of the grades briefly again before launching the child's fragile little shallop of knowledge on broader and rougher seas. This review stage and process should be thorough and rigorous. Twelve is in a sense the review age *par excellence*, and its possibilities should be made the most of and not squandered, for it is the last drill age and defects in the elements neglected now can never be remedied later. Begin this work in a preparatory high-school course in some few grammar rooms, but with accountability to the high school for it, if nothing better can be done, and give a taste of the joy of dominating lower grades, such as college dons have long felt in their protectorate of the high school, to the teachers of the latter. No doubt college dictation has done the high schools vast good in the past. Let them now pass on a similar benefit to the lower grades. Thus, too, the positive scandal that the vast majority of boys and girls, perhaps nineteen out of twenty, and often ninety-nine out of a hundred, leave school forever without ever having been for a single day under the influence of a male teacher, would be minimized, and when they reach the teens and their manhood begins to bourgeon, they would not instantly think of school as a "sissy" affair, to be thrown off. The ten years of secondary education in Europe is essentially in the hands of men. Is this all wrong, and does our system give what the most virile boys need and crave? If it did, we might probably here save the lost years or those by which Europe surpasses us, and if we ever were able to educate boys of eighteen up to the college junior year's work in the high school, all right, but this must not be done by keeping pupils two years longer.

Thus it comes that the youth now in our high schools are both too old and too young for their studies. They are too old for the pure drill and habituation method in elements which ought to have been the chief feature of the lower grades, as I have tried to show in the chapter on defects. The vocables and vocabularies of foreign languages should come early. It is puerile for those in the middle teens to be learning, e. g., the German alphabet and the x, y, z, which is the a, b, c of algebra, to say nothing of the individual time that must always be given to the neglected and half-taught simple and correct vernacular expression. Higher mental powers are now unfolding by leaps and bounds and the craving for substantial, rather than formal, topics is rapidly approaching its culmination. The mature boys and girls of the senior class, the latter nearing the marriageable age, should not be grinding over juiceless and jejune elements, but should be inducted into the things the great majority of those who leave at this stage may live by. Much that pertains to the conduct of life needs but a hint to be appropriated forever. The mind now craves masses of general and germinal knowledge and needs to see large surfaces without the thoroughness and accuracy which is not yet germane. For this they are too immature. The age for doing everything well, or not at all, has not yet come. The muse of exactness needs older devotees. Now the soul absorbs suggestions, typical facts in a vague and unaccountable way. This is the day of extensiveness, and not intensiveness. Culture, to be best instilled, should be general, and the only specialization that should be stressed far more than at present should be vocational. The boy should be helped on toward ability to earn a living and the girl toward what is necessary in the conduct of a home. This is the prime and essential thing in method, and all else rings hollow.

II. The curriculum needs radical reconstruction to meet the needs of contemporary life, and certain of the old traditions should be abandoned. *Latin*, e. g., was once the tongue of the rulers of the known world. Imperial Rome absorbed and dominated the chief peoples of Europe, North Africa, and Western Asia. But it fell, and now not a living soul adores Jupiter, once father of the gods and men. Then the Church grasped the falling scepter, and its spiritual sway became hardly less extensive. Latin became the universal language of culture. The Reformation broke the universal sway of the Church and the new vernaculars slowly became the vehicles of learning. Thus, Latin is thrice dead for an increasing portion of the modern world. The high school has not realized these great facts, and hence this language lingers on in attenuated form. It is, now and here, the worst taught and the most poorly learned, has the fewest appliances, and is inculcated by those who, on the average, know probably less about their topic and have less enthusiasm for it than is the case with any other department. An agency tells me that more teachers of Latin can be procured at shorter notice and for less pay than in any other topic. In the days of Sturm, boys of tender years spoke it even at play. They memorized long passages, thought in it, and wrote hexameters. German schools have series of scores of charts and sometimes models like those shown at the St. Louis Exhibit, now the property of the Washington University, illustrating trades, industries, dress, homes, daily life, etc., to make old Rome live again. But the walls of our Latin classrooms are usually bare, save for perhaps a map and maybe a bust and a few photographs of ruins, typical of the low estate of the subject. Those who study it seriously are animated chiefly by the factitious motive of being able to teach it by our method of assigning the next ten or fifty lines to be recited on, while the feeblest teachers, with a translation or pony at hand, are easily able to keep ahead of their classes. It is usually taught by women who set lessons and exact tasks rather than inspire. It is the most formal and least material study, save algebra. Hence, when the first flush given by the initial sense of superiority of learning an unknown tongue has faded, the only motivation left to go on is the school artifact of standing well. This waste of human energy is particularly pitiful when so many other vital studies are clamoring for time and place in the curriculum. Most who go a little ways with it drop it forever and get no subsequent profit, unless they become apothecaries, anatomists, or biologists, and are so helped in technical nomenclature. Roman Law is dead and Latin profits the practical lawyer but little. Some theological schools propose omitting it, not requiring it or making it optional. With Catholics it, of course, stands in high esteem and the familiarity of many students of Jesuit colleges with it is most commendable, and it is, of course, indispensable for those who enter the priesthood. Booker Washington tells us that for decades after the Civil War the chief ambition of bright young negroes was to hold office, with a uniform, and to study Latin, and adds that his life work has been largely directed against these ideals. Very grave, too, is the danger that the idiomatic use of another tongue will be destroyed by "translation English." A boy pieces together into an English sentence, which is as weird as it is literal, a series of definitions, and tolerance of this style impairs his sentence sense and fine feeling for his mother tongue. He never learns to fuse the sense of it in a crucible of his own intelligence and to recast it in the most effective way which the genius of his own tongue makes possible. Once it was thought that this process gave a generalized type of ability or general culture, but the very existence of any such thing is now disputed by psychologists. The power which is trained for efficiency in one direction cannot be applied in any other without very great abatement and loss, if indeed it can at all. Thus, the last stronghold of the apologists of Latin on its present basis is shattered. Worst of all, perhaps, other topics more essential for high living and self-support are pressing hard. The demands for other types of training are now irresistible, and these—vocational though they be—as I have elsewhere shown (Chapter VIII), are becoming cultural in all possible senses of that term, more so, indeed, than the school has hitherto known. Moral training, too, is looming up as perhaps the most vital of all, and the ethical facet of every topic is now being examined with a view to its maximal utilization for right living. Life is infinitely more complex than it was a generation, or even a decade, ago. The school must be life, and not merely fit for it. Is the school cult of Latin honest, or is it a sham involving demoralization and self-deception? Does it bring the reality of knowledge or only its conceit? Could not the time of the few of our high-school youth who take this subject be better spent? This is the crucial question. If it could be, it is a monstrous crime against ingenuous youth not to abate the infamy of the cult on its present basis. I have elsewhere tried to examine the latest claims of its apologists and believe I have shown that they are trivial and sophistical to an almost incredible degree.

Yet I believe in Latin in its ideal estate and would have it taught intensively or not at all, and only to the few who are likely to have real ability and taste for it and are likely not to lose it, but to go far enough so that it will stand by them in later life. The kind of teaching actually done is radically different from that prated of in public and the benefits it could confer are very rarely attained. Because it is so dead it needs the livest and not the deadest teaching. It could be magnificent if taught by a master whose mind moved freely in it and had command of the resources now available for illustration and who saw clearly all the debt the modern world owes to the Roman Law, literature, language, etc., and who could resurrect it again in the minds of his pupils. But the smattering now given, the scrappy, philological, fragmentary rudiments actually taught are a pedagogic abomination. The decrepitude of the subject has become unsightly. Its standard of work and its methods are effete and demoralizing to other courses. Let us, then, either revive it or give it a decent burial.

III. *High-school English* is somewhat, but not very much, better. As for Burke, Macaulay, Addison, now so often required, their language and style would not be tolerated in Congress, in a modern historical society, nor in a literary journal, the environment respectively of these authors. We speak and think quite otherwise to-day, and these raucous voices are from the splendid tombs of our literature. Youth, moreover, has its own *lingua franca*, crispy, condensed, pointed, picturesque, staccato, and its nature and needs fit the ponderous Latin style of the above English authors as Saul's armor fitted young David. As for Scott, he should be read rapidly as romance, and not studied in a detailed way as literature.

Nor is Shakespeare a pincushion for historical, antiquarian, or philological notes, like those of the Clarendon Press or Rolfe editions for schools. Adolescent reading should be rapid, far more extensive than intensive and impelled throughout by vital humanistic interests. The time for critical reading has not yet come, and that for philology is still farther ahead. The best thing youth gets from literature is not linguistic and is not examinable, but content should be forever uppermost, for only then can the other culture effects here sought be attained. Form is a necessary alloy and is worthless, not to say dangerous, by itself. We must not teach English as if it were a foreign tongue. Pupils held to modes of expression that are unnatural and seem stilted to them, react, the moment when school restraints are off, to slang because they crave and need expression and not repression. The best literature, too, is fashioned on the best conversation, as the best age of French literature was that of the salon, while if talk becomes bookish, it loses vitality. If pupils write themes, they must have something to say that presses for utterance and ideas to set forth, knowledge to impart, feelings to utter, convictions to state, experiences to describe, facts or thoughts to put down. Otherwise, literary efforts are but verbiage. If they read, it must be what absorbs and carries them along, be what their curiosity burns to know. They must be impelled by some strong interests and impulses characteristic of youth. If there are plenty of these things, the three big P's of the rhetorics—purity, precision, and propriety—come of themselves untaught or are inculcated by the method that suffices for genius, whether in teacher or taught—viz., that of hints. Some familiarity with the best contemporary writers whose pages burn with the problems of the present and that strike home by their inherent appeal, and to approach which it is not necessary to waste half the energies of the teacher in getting and keeping up interest, gives a culture which is not a sickly cellar plant and which does not desiccate when school is abandoned. No one reads critically in later life, but most of us read very extensively and cursorily, and this we should cultivate as a habit. Pupils should read much and without direct control and meet and pool their knowledge, telling others the best they have found. Young people, especially girls, are just in the stage when they would profit most by the kind of instruction now given by those many ladies who describe the works of leading living writers of fiction, poetry, etc., giving an hour to a book or an author, reading extracts with general characterizations, such as is now common in subscription parlor courses to ladies who wish to keep up to the times in all our cities and to learn what is best worth reading from the public and loan libraries, which latter are often even more crowded than the former. The souls of even girls would expand under the tuition of those who read and comment on Tennyson, Shakespeare, and even tell about Ibsen and his work, Tolstoi, Sudermann, perhaps Bernard Shaw, Rostand, and a long list of the best and most recent plays, and perhaps a touch, but not too much, of Browning. They want to be told a little about the problems of the editors of the monthly and quarterly magazines in this country and the world and to get in touch with a few, to know something of the contemporary stage and of dramatic criticism, as well as a few problem plays and psychological novels. They should not leave school ignorant and unoriented in the deluge of modern literature, where the worst is so hard to distinguish from the best. Of course, we must not neglect the history of literature or leave classes entirely uninformed of the few great authors of the past, but the teachers should not burrow in it or confine themselves to a few choice samples, but give plenty of horizon and sea room.

There are very few professors of the English language or literature, save men like Herrick and Mosley at Chicago, Matthews at Columbia, and some in Southern and ladies' colleges, who are not predominantly philologists, and these savants feel scant respect for their colleagues who can appeal to a popular audience, as above, or even to the reading public, although, happily, the number of these latter seems now to be somewhat on the increase. Now all this has its place, but it is in the university, and its spirit should not percolate down into high schools. We need a new and wide survey to purvey wisely and well for them. This need the high school does not even recognize, much less meet, but accepts old traditions and college prescriptions blindly. Pupils in the high-school quadrennium constitute almost a unique species of mankind. What sort of an academy, too, in the sense of that of France, could we compose of our college dons in this field, precious few of whom ever wrote or could write a line that appealed to vital human interests or added one iota of value to English literature, although they have created and disseminated many technicalities which, valuable as they are for their science, repress rather than evoke literary power in the young? It would be very hard even yet for any great author to succeed in a professorial chair, especially in the older endowed colleges or universities of the East, and the quintessential instruction he would be likely to give would be discredited by his form-loving colleagues as unscientific, as, in fact, true literature must from its very nature forever be. But for this propensity to ape academic work, on the one hand, and the coercion of entrance requirements, on the other, the voluminous notes of the school texts, which for pupils at this stage are only chip piles from linguistic workshops, would receive scant attention. English literature cannot be put up in lesson doses or doled out in packages, marked in class or sold in dollar books per term. One university examines in this field individually and lately admitted a bright, husky country lad who knew almost nothing of English, save the Bible, but he knew this well and did well. I believe the high-school teachers in this field, who are also mostly women as in Latin, would do better now if left entirely to their own devices for a time and encouraged to trust their intuitions, and not to wait docilely to be told how and what. And perhaps the dramatic element should be stressed, parts assigned and read effectively on the school stage, with a few accessories and very frequent changes of play. Individual reading should always be encouraged and always pooled. The teacher should be an active reader and tell the best she has found, should pass out well-chosen books from a compact school, loan, or public library, with perhaps large portions marked for skipping and others for emphasis; thus, in the course of years, editing books and courses to fit diverse zests and capacities. Gems might be sought out in the best magazines. The difference between successive classes is often very marked. Thus, no department suffers so much from rubricization and regimentation. At present the high-school graduate who goes no further is left with almost no conception of recent and still less of contemporary writers. He would naturally infer that the golden period of our literature is passed. Of Shakespeare, he knows from two to four plays well, but almost nothing of the rest. Class work and discussion is on expression rather than on character and the story or thought itself, which for youth is always the heart and core. The English like the Latin teacher should teach nothing else.

IV. With high-school algebra the case is very different. Classes in it often outnumber all others in certain grades, till it has become practically the leading topic. Here, perhaps, even more than in Latin, a very slight equipment of knowledge enables the teacher to have an elementary class at his or her mercy as the subject is now taught. It is the most purely formal of all topics. It is the logic of mathematical thought and, if mastered, is one of the most economic and labor-saving products of all the marvelous creations of the human intellect. Like Latin, it gives the beginner an initial exquisite sense of superiority in dealing with terms that are utterly unintelligible, save to the initiated, and, with Latin, it is at present the topic most commonly advised by teachers and principals to pupils in doubt what to study. But incompetence, the vicious lesson-setting habit that prevails in our schools, the lack of active aggressive teaching, the too great isolation of the subject from arithmetic and geometry, from which it should grow, step by step, and imperceptibly in a practically integrated course, makes it soon a dry, half meaningless congeries of puzzles and stunts, save for the few gifted ones, something rarely usable in subsequent life and very effectively forgotten and done with when school is over, and even before, because, like Latin again, it shows a record of classes rapidly dwindling in size up the grades. The international reformers, headed by Professor Klein, elsewhere described, recognize this wastage and miscarriage and may succeed in ameliorating these conditions.[1]

V. Years ago there was a tacit agreement among the colleges to combine their efforts to introduce and increase science teaching in the high schools, which were then almost impregnable to it. To this end they focused on *physics* as the most representative of sciences and which they hoped to make an entering wedge to others. Whether this choice was wise, or whether biology, which is so much nearer to life, would have done better, need not here be discussed. Uniform requirements were laid down and specific courses of forty, and then more, experiments were prescribed in various texts. Instead of the old natural philosophy which brought and left the pupil's mind hard up against the problems of the material universe, mathematical relations were pushed to the front and formulæ taught for each problem, while in place of demonstration by the teacher before them, experiments by the pupils themselves came in. No such concerted or arduous effort was ever made to arouse the high schools from their lethargy and their smug complacency with cut and dried ways and to bring them up to date. The promoters of this movement hoped great things for other sciences as an indirect result of their efforts. What have these been? Barely seven per cent of the boys in the high school are now studying this subject. It was the old, old story of pedagogy and the same old tragedy and pathos—the teacher loves form, the pupil content, and content is the only thing he will appropriate with avidity. The dish so carefully prepared for the pupil did not suit his appetite, and he turned away. Had some stress been laid upon the lives of great physicists which constitute a splendid chapter in the history of culture, interest would have been aroused. Pupils at this stage love to try their callow thinking powers upon the great forces of nature, but the age for appreciating descriptions of their operations in mathematical terms has not yet come, and so these classes dwindled. Lately, however, a little group of young reformers has taken up the matter with sounder pedagogic sense and given us a few new texts that look toward a recovery of this lost trail. These contain not only culture material, but much applied physics, and it is a law of growth that the practical applications of any science normally precede interest in its purer forms.

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[1] See latter part of Chap. xviii.

VI. History, too, has been the victim of a strange commingling of academic prescriptions as to generalities and neglected as to details. The teachers have been forced into certain fields, but left with less help than is usually afforded them as to how to conduct their work in these domains.

Academic influence on the high schools was here, too, once a great and wholesome stimulus, but as in most departments, it has now degenerated to an obsession in ways I have tried to point out in some detail in Chapter XVI.

VII. Modern languages are taken by fewer pupils and have been more stimulated and less injured by academic prescription than most topics. (See Chapter XV.)

For the next five points the high school should build on the foundations suggested for the reconstructed geography, as follows:

VIII. Geology and paleontology are rarely taught in the high school, and if the pupil acquires an inkling of what they mean from the geography of the later grammar grades, he must usually put this zest in cold storage until he enters college, or else, if he goes out into the world at this stage, he does so in ignorance of all the marvelous achievements of generations of great minds that have made this field one of absolutely unique value, combining the very best that is found in both the purely cultural and scientific and the practical interests which have a vast range of utility and great power of intellectual stimulation. Why the rudiments of this subject are so unknown in the modern high school, when they are perfectly capable of being understood and when their sense could never be forgotten and would so enrich the life and mind of all, it is hard to see.

IX. In chemistry, no serious attempt even has yet been made by chemists to sift out the genetic elements of their department and to adapt it to the nature and needs of high-school youth. The story of its development as an important part of culture history is rich, quickening, and almost romantic. So, too, the wide domain of its applications, which should be at least cursorily sketched very early in the course to generate interest over a wide field, has been neglected. We do not yet have a text that begins to bring out the possibilities of this subject for these grades. The chemist should emulate the physicists in this respect and the high schools should realize that those who leave in complete ignorance of this subject suffer from the atrophy of unused powers and fail to connect with many of the dominant interests of modern life, so that to this extent they are practically paralyzed.

X. Biology, small as is its representation in the high school, has there now become essentially technique and nomenclature. The student who takes it may learn something of remote and microscopic forms and acquire a small vocabulary of new terms, but he learns little here of dynamic biology on which the prosperity of nations depends. Our government has spent many millions of dollars in studying the life histories of the more dangerous pests, and also the economies of all the domestic animals, poultry, common birds and their place in the economies of nature, and, in short, all the forms on which human life is now and has been most dependent ever since plants and animals were domesticated and the pastoral stage of herding began. This, moreover, is an agricultural country, extensive institutions in every state being devoted to its interests, but in scores of high schools, even in crop-raising areas, nothing of value to young farmers or foresters is thought worthy of incorporation into the curriculum. Even school gardening stops short at the door of the high school. In this field lie the all-controlling problems of life, health, reproduction, disease, and the place of man in the world, than which nothing is more essential for right living and beside which Latin and even algebra pale in importance, like the moon before the rising sun. In answer to the objection often made by the orthodox, that if biology comes in we must teach evolution, I long to reply, Yes, and that is the best of it, for this is the philosophy of philosophy, the most comprehensive and economic way of looking at the universe, the most mind-quickening discovery, the most comprehensive consensus ever made, and even in the teens its elements are perfectly intelligible and, having known them, intellectual interests would be generated that never could be quenched. But I do here make another answer, viz., that it is not at all necessary to touch evolution to secure nearly all the above advantages. It is not needful to even hint at it, as my colleague, Dr. C. F. Hodge, is showing in his forthcoming high-school text upon the subject somewhat along the above lines.

XI. Astronomy, too, has its own peculiar uplift. It stimulates the scientific imagination, brings a sublime religious sense of awe and reverence so needful and so pregnant for the soul of youth. Years ago I myself culled from a few texts material for a series of talks to high-school pupils, one each on the sun, the moon, the solar system, meteors and nebulæ, the celestial vault, some facts about fixed stars and other miscellaneous topics. Despite the amateurish nature of my effort, never have I felt such an exhilarating sense of having done my pupils good or of the power that is possible for the teacher to exercise in developing the soul. The culture history connected with this topic, too, is itself a chapter of absorbing interest, and as a power generator is almost unsurpassed.

XII. A little anthropology should have place in a real people's college. If it be true that the highest study of mankind is man, then this vast field, so rich in things young people should know and could easily comprehend and which would so expand their very souls, should not lie fallow, although possibly even Frobenius' admirable text does not fit the nature and needs of this stage of education.

But the teacher will cry out: All this is utterly impossible. There is no time; the pupils are already overworked and so are the teachers. I reply: It is indeed impossible by present methods, which do overwork all concerned, but it is precisely these methods that must be radically changed. Our teachers must teach as the German teacher teaches, and then all the above would be not only possible, but vastly easier than the present system of forced labor. It would slightly approximate my own poor teaching of astronomy as above, which took very little time and exhilarated me and my hearers. The curse to be lifted is the eternal stint setting and lesson regurgitation. The high school is sleeping or almost comatose and should be awakened to the demands of the present century. It is a body which is only half animated and should acquire a soul. It needs a change of heart and new life and conversion. Languages are not the chief things, are not things at all, but only words about them. Even the older manual-training high schools are wooden and dead to the new burning questions of industrial education and to the effective teaching of English (see my "Adolescence," Chapter XVI). In meeting these new demands the West is ahead of the East, but even there reconstruction is imperative. These adolescents are in the very most impressionable stage of life, but what do high-school teachers as a body know or care concerning the nature and needs of adolescence, which should be a cardinal study for all of them? They know the system, and that is for most of them the essential thing to which they must adjust themselves and their pupils as best they can. One might almost ask what is there that cannot be done with the right method and spirit for the flower of our American youth during these pregnant and inceptive four years, the infancy of the higher powers of adult manhood and womanhood? All pupils have to be ranked and graded and all subjects quantified in labeled packages. The atmosphere of the high schools is close and stuffy. They are not democratic in this country, but more aristocratic, more class schools than the *lycée* or the *Gymnasium*. They are less in touch with the vital needs of the pupils for their after life and with those of the community. No private business could possibly be conducted on a system so slack and ineffective, nor could even a public service corporation—wasteful as some of these are.

The needed reforms to be complete would, of course, involve changes in *our colleges*, which I had hoped for space in these volumes to outline, but must attempt elsewhere. We shall never reach academic stability and effectiveness till we both relax and change the present hideous system of our examination boards, in which many of the worst influences of our educational system culminate. Every young man who can profit more by being in college than elsewhere has a right to be there. The motto should be, Easy in, and hard out, instead of the reverse, as is now the case. Even if a majority who entered college never graduated, this would not be an evil but a good, both for them and the institution, as well as for the country. The old endowed institutions especially have obligations that they are not meeting, but are drifting away from the life of the nation, and the high schools have followed them. There is no tragedy in our system quite equal to that of holding up a bright, earnest young man for a year because he has failed by a point or two, or from conditional entrance. If we taught more and relied less in colleges on daily recitations and term and annual examinations, we could adjust all our work without jeopardy to larger numbers. Larger public service would be rendered and a larger proportion of students would be candidates for full academic citizenship. We need not even pursue the method, now in vogue in a very few colleges, of admitting nearly all for a few weeks or a term and then eliminating those below standards. Graduation should not be a matter of terms or years, nor come as a matter of course at the end of the quadrennium. If we could even adopt the distinction between pass and honor graduates, this alone would ameliorate many evils. Still, many, if not most, of the high-school reforms here advocated could be effected without these changes in the system higher up, although they would undoubtedly tend in time to bring them in.

Our high schools should do vastly more than they now do in the way of equipping themselves for their work. Most of the best buildings are wretchedly furnished in this respect. In every department there is now a wealth of illustrative material available that they seem to know nothing of and without which they are soulless. Charts, models, diagrams alone greatly facilitate every stage of work in all departments. The very catalogue of those now made in Germany makes altogether a volume of over five hundred pages. Rich as we are in text-books for pupils, we are poor in those for teachers. Some $10,000 for such things in each municipal high school would be well invested, for it would reanimate teaching.

But the worst influence of the college on the high school in the East is *isolation from life.* It is not creditable to our academic institutions that each year in Boston and vicinity thousands of young men seek aid from the correspondence school at Scranton alone. Nor is it creditable that each year we must go to the State House and plead against the taxation of our dormitories and professors' houses; nor that so many of the old endowed institutions are becoming more and more local in the area from which they recruit their students. The rivalry between these and the state institutions of the New West is now intense. Some of the largest of the latter can now get almost anything they want from the Legislature. Their influence is felt in every industry of the state, many of which they have recreated. Wherever knowledge would profit, their representatives are on hand. These institutions go out to the people with brief courses of all kinds—cultural and practical—and admit crude, untrained boys in the teens from the farm to six weeks' courses in stock judging, economic farm foddering, plowing, testing, sowing seed, cultivating, fertilizing, and harvesting. They scrutinize every industrial process and send experts to tell manufacturers how processes can be short-circuited and wastage saved. They realize keenly and to a man that they are public service institutions. If such a thing as an educational emperor with absolute power or a ministry with plenary wisdom and authority is thinkable, he might with profit draw up an itinerary for Eastern academic presidents and professors through the largest institutions of the Middle West, of which they know so little, since so absorbed are they in the details of administering their own institutions, that they have never been able to take the broad comparative view. They know European institutions far better than they do those that are most unique and progressive in our own land. The new ideals thus would filter down and quicken the high school, which is so sensitive to every new wind of academic doctrine and every new item of method and spirit that comes from the grades above. Supported by public funds as they are, if the high schools of the East could fit for and set their watches by the best of these Western state universities for a season, how different all would be, and how the evils due to the capture of these institutions, supported by and for the people by private corporation colleges, would be mitigated both for the classical high schools which do nothing but "fit," and for the manual-training high schools of the old type that fit for nothing. Conditions have changed too rapidly for the older and more influential teachers to adjust, and perhaps, if only some Carnegie pension could eliminate a few hundred of them and their places be filled by younger men and women, that might inaugurate a better era, for some of our colleges and universities are now learning how to give the proper pedagogic training to teachers in secondary schools, slow and difficult as progress has been in this direction and accompanied, as it often is, by a system of drummers and peripatetic representatives of colleges and universities with attractive allurements to students in one hand and a list of finished products and candidates for vacancies in the high-school teaching corps in the other. The alertness of these agents is not yet equal to that of those who travel in the interest of text-books, nor perhaps to those who recruit for athletic teams, but it may soon become so, as scholarships with which bright sub-freshmen can be purchased by the highest bidder, multiply. But, despite all these present evils, I am no pessimist. The high school has made a place, and a large one, for itself and progress has been almost phenomenal in number of pupils, teachers, expenditure, buildings, etc. It now remains to fill this large place with better work, better methods, to make the internal commensurate with that of the external organization by the transformations needed.

CHAPTER XXIV

CIVIC EDUCATION

The supreme duty of service and the new demands of civic righteousness—The great recent development of civics from obscurity to the leading place in education—The power of civics to regenerate teachers and teaching—Its beginnings in the small group or gang and its irradiation outward—How to teach it together with patriotism in the lower grades—How to develop public mindedness in the secondary grades—List of the topics which all young voters ought to know something of—New duties which civics lays upon young men and women who have leisure, upon cities, and voters—The school thus restored to its original meaning.

THE one word now written across the very zenith of the educational skies, high above all others, is the word *service.* This is coming to be, as it should be, the supreme goal of all pedagogic endeavor, the standard by which all other values are measured. It includes the highest of all duties. The individual is an end to himself only that and in so far as he may be a means of helping his fellow men. If there be a God, we serve Him best by serving mankind. If we have a soul to save, we save it most surely by saving our fellow beings to the best that is possible in this life. If there is any heresy that the dear Lord will pardon, it is that of interpreting theology as anthropology and turning to man all the love, devotion, and service which we were once enjoined to direct toward Him, if indeed this be a heresy and not the cardinal article in the creed of the new orthodoxy. Perhaps He would now prefer us to neglect or even deny His existence if thereby we became more serviceable toward our brethren. In this new firmament, it is those that do most for the race that will shine as the stars forever and ever. In a sense, perhaps God and His transcendentalities are dying again for the greater glory of man, and that the twilight of the old theism is merging into the dawn of a new humanism in which we and our descendants shall devote to our fellows all the reverence and sacrifice formerly offered to heaven. This, indeed, is the new religion of to-day, which lies concealed in the old and is now standing forth revealed. The hope of this new dispensation is the most precious of all the deepest and best aspirations of the present, and its progressive realization is the purpose of all modern reforms. Its beginning in this direction in the field of education is so full of the hope and promise of better things that were our pedagogic agencies less effective than some of the foregoing chapters may seem to imply, when we look at things from this standpoint, we cannot lose heart. The civilized world is realizing as never before that all who live for themselves live in vain; that the chief enemies of society are not those who debauch themselves, but those who prey upon it, who subject the common weal to their own well-being; that the undesirable citizen is the enemy of the community and of the country, and that the corporation that subjects the best interests of the people at large to its own is anarchistic. The burning problem of our generation is how to check the grasping private interests that flourish at the expense of the public good, and the very best thing the schools are now beginning to do is to inculcate some knowledge of and sympathy with the simple duties of civic virtue, which is the prime requisite of a good social order. But this is a hard lesson and must be begun early and taught late, in season and out of season. The cause of civic righteousness is so vast and all-conditioning, especially in a democracy, that it often makes feeble and untrained minds fanatics who discredit the very cause they would advance, but we are slowly if surely learning temperance and moderation and are finding the broad middle way of permanent progress. We are learning that, whether in history or romance, the names that shine with the fairest and brightest light and last longest are of those that have done most service. The great moments in great lives are those when the supreme choice is to be made between self and the welfare of others, and the best criterion of supreme manhood and womanhood is when the latter prevails. More and more enlightened public opinion is coming to distinguish between those who live and die for themselves and those who live and die by the gospel of helpfulness. Measured and judged by this criterion, many moral values are being transvalued. Some of the great and rich are revealed as small and mean, while obscure and poor lives shine with a new glory. Here we have the basis for a new order of nobility which all may enter by merit. Indeed, without this new spirit, knowledge itself may be a niggardly thing and a more refined form of self-indulgence. It must not be hoarded or stowed away in tomes only, but dispersed and brought to bear where it will do most good.

The literature of this topic is already copious and can only be sampled, but no bibliography should omit the germinal work of G. T. Balch. (The Methods of Teaching Patriotism in Public Schools. N. Y., Van Nostrand, 1890. 109 p.) James Bryce sets forth some of the difficulties to be encountered in his Hindrances to Good Citizenship, e. g., indolence, private self-interest, party spirit, etc. (New Haven, Yale University, 1899. 138 p.) W. J. Tucker, late president of Dartmouth, prints twenty-four very stimulating addresses (Public Mindedness. Concord, Rumford Press, 1910. 356 p.) on citizenship as enjoying the privileges of a city or state, its sacredness, social obligations, the spiritual life of the modern city, the nation's conscience, land, ownership, the wage earner's mind, what patriotism should demand of education, how it may be arrested, new ideals for youth, contemporary greatness, etc. The late N. L. Shaler (The Citizen, a study of the individual and the government. N. Y., A. S. Barnes & Co., 1904. 346 p.) discusses what liberty is, the share of the individual in the state, the practice of citizenship, party alliance, the limits of freedom, health, wealth, immigration, suffrage, the negro question, foreign possessions, the citizen and the city, the value of great men, the future of the commonwealth. W. S. Sheldon (Citizenship and the Duties of a City. Chicago, W. M. Welch Co., 1904. 466 p.) discusses love of country, the protection it offers from attacks and its guardianship in peace, the state as the servant of its citizens, what our country does for us, money and its ethics, duty of voting, of tax paying, of public office, festivals, flags, crime, disputes between states and arbitration, moral character of states and nations, struggle for freedom, the national anthems, the future industrial state. He also treats patriotic stories, classic selections. H. E. Bourne (The Teaching of History and Civics in the Elementary and Secondary School. N. Y., Longmans, Green & Co., 1902. 285 p.) connects civics at every point with history which he thinks it should be used to illuminate and has an admirable chapter on the teaching of civics based on John Fiske's "Civil Government," F. G. Goodnow's "Politics and Administration," De Toqueville, Woodrow

Wilson, etc. J. M. Coleman (Social Ethics. N. Y., The Baker & Taylor Co., 1903. 357 p.) treats of the nature of the state, church, social institutions, factors of social union, social conscience, forces, sovereignty of the state, law, authority, and nature of Christian state. J. W. Jenks (Citizenship and the Schools. N. Y., H. Holt & Co., 1909. 264 p.) considers the training for citizenship, social basis of education, relation of public school to business, education for commerce, free speech in universities, critique of educational values, state policy in education, with a final and very instructive chapter on school-book legislation. W. H. Allen (Civics and Health. Boston, Ginn & Co., 1909. 411 p.) discusses health-rights, with various catch words and emphasis on those not enforced. Then he takes up special topics, like mouth breathing, colds, eye strain, mental sanitation, vital tests and statistics, coöperation in meeting health obligations, service and economies, industry, health, tuberculosis, milk. Under official machinery for enforcing health-rights, he treats school hygiene and the press. He pleads for an alliance of hygiene, patriotism, and religion as against do-nothing elements. He condemns heredity bugaboos and ineffective ways, discusses alcohol and tobacco, health advertisements, sex hygiene and the natural as the secret of the moral life.

Other helpful books are American Municipal Progress, by Charles Zueblin. N. Y., Macmillan, 1902. 380 p. Social Phases of Education in the School and the Home, by Samuel T. Dutton. N. Y., Macmillan, 1899. 259 p. Our National Parks, by John Muir. Boston, Houghton, Mifflin & Co., 1901. 370 p. Democracy and Social Ethics, by Jane Addams. N. Y., Macmillan, 1907. 281 p. Vocational Guidance of Youth, by Meyer Bloomfield. N. Y., Houghton, Mifflin & Co., 1911. 124 p. Ethical Democracy—Essays by various authors, edited by Stanton Coit. London, Grant Richards, 1900. 112 p. Essays in Municipal Administration, by J. A. Fairlie. N. Y., Macmillan, 1908. 374 p. Editorials of Chas. Mulford Robinson on Civic Improvement. Survey, 1907, '08, '09. Vols. XIX, XX, XXI. The Call of the Nation, by David Starr Jordan. Boston, Am. Unitarian Assoc., 1910. 90 p. The Nation's Morals. London, 1910. The Teaching of Citizenship, by E. H. Hughes. Boston, Wilde, 1909. 240 p. See, too, Roosevelt (Civic Helpfulness. Century, 1900. pp. 939–944). Also New Boston, 1915. Jan., 1911. Vol. I, No. 9. Christianity and the Social Crises, by Walter Rauschenbusch. N. Y., Macmillan, 1908. 429 p. The Approach to the Social Question, by F. G. Peabody. N. Y., Macmillan, 1909. 210 p.

As illustrating the early stages of this topic, these are a number of pedagogical experiments which have been reported. An Experiment in Civics in Eighth Grade room (Child Study Monthly, 1897–98, Vol. III, pp. 87–94), by H. Dynan; the City of Telhi, a junior republic, a recent and interesting spontaneous social organization of boys, somewhat on the principle of the McDonough Institute, which tells how a boys' club mixed sociology and sports (Education, 1906–

07, Vol. XXVII, pp. 271–280). For a broad view of the junior republic, see articles on this subject in Am. Jour. of Sociol., beginning November, 1907, by J. R. Commons.

There are various texts designed for school use, of which the following are a few samples: C. F. Dole has an admirable little text (The American Citizen. Boston, D. C. Heath & Co., 1893. 326 p.) in which he treats family, school, playground, debating club, habits, nature, and forms of government, Congress, the Judiciary, the Treasury, civil service, voting parties, the citizen's duties, abuses, property, honest money, capital, credit, interest, labor, the grievances of the poor, the employers and employees, neighbors, crime, poverty, temperance, international law, etc. John Maccunn (Ethics of Citizenship. Glasgow, J. Maclehose & Sons, 1907. 148 p.) discusses human equality, right citizenship, morals in politics, the rule and tyranny of the majority, political consistency, democracy and character, economic aspects of luxury. The Civic Reader for New Americans (N. Y., Am. Book Co., 1908. 91 p.) consists of chapters by various authors on Boston, its schools, streets, health, safety, baths, gymnasia, how money is raised and spent, duties to fellow citizens and to country, with appended songs and extracts. W. E. Forster (The Citizen's Reader. London, Cassell, 1885. 216 p., designed for British youth) discusses patriotism, property, queen, lords and commons, making and execution of laws, parliament, justice, thrift, the new freedom, watchwords. Henry Holt (Talks on Civics. N. Y., Macmillan, 1901. 492 p.) refers favorably to several elementary books on law, Martin's "Civil Government" and Ford's "American Citizen Manual," Bartlett's "What I Ought to Know about the Government of the Country." He then discusses the functions, geographical divisions, departments of government, beginning with rights to life, liberty, pursuit of happiness, property, real, personal, etc., monopolies, trusts, contracts, many public works, reactions, defections, education, municipalities, taxation of various kinds. Those interested in French literature on this subject will find representative textbooks by E. Goepp & Gustav Ducoudray: Le Patriotisme en France (Paris, Hachette et Cie., 1885. 253 p.), which touches the great and stirring events in French history, with a view to inspiring patriotism, having much incidentally to say of duties to the state; Picavet (Instruction Morale et Civique. Paris, Colin, 1902. 609 p.) which is almost an encyclopedia of moral and philosophical knowledge, ending with civic instruction concerning rights, the state budget, departments, community, etc. France has very many manuals of moral instruction, e. g., those by Laloi, Mabilleau, Viala and Girard. Perhaps best of all are those of Payot.

The vocation of teaching should furnish many true saints for the calendar of this new religion, and would if the schoolroom were indeed a workshop of the Holy Ghost and if teaching were done with the abandon and self-abnegation which makes the work an inspiration to both teacher and pupil and which gives some of the spirit of consecration to the race which should be the religion of business of whatever kind. So sacrosanct should be this holy function of teaching that it should indeed be a *calling*, and even boards that control public education should feel it, for they should be recruited from the best citizens, who never refuse but seek to serve, to give instead of to get, realizing that office means only opportunity for usefulness. Our charities and educational endowments are splendid monuments of the noble impulse to serve. That we are making real progress along these lines is seen in the fact that many, whom most of us can name, have grown of late, some more, some less, ashamed of their business or of its methods and seek concealment from the new tide of public censure, even though they do not yet leave or reform their occupations, but this itself is something. Some corporations, too, are getting souls and becoming as honest as they can possibly afford to be. Monopolists of natural resources and of public-service franchises are having to practice new arts of concealment from the ever more piercing and formidable scrutiny of public opinion. Many of our rich men are now diligently and earnestly seeking new modes of public helpfulness and finding new needs. Men and women with leisure, strength, and youth are devoting themselves to social welfare in numbers and with an enthusiasm hitherto unknown, and we need not go to France or Japan, where civic virtue and patriotism have been deliberately made the only religion of the state, to find a large and growing rich literature upon the new duties of man to man. As machinery and mechanization increases in every department of business, and processes that were once voluntary and absorbed attention are steadily being relegated to lower automatic centers, higher powers are thus being constantly freed for better things, if only they can be directed aright. We are now happily demanding more and better things of the family, the school, the state, and the church than they are now doing, so that "exposure" literature really shows not necessarily that they are getting worse, but that public sentiment is becoming wiser and better. We are testing ourselves as well as our institutions by this new touchstone of service. Service is the highest criterion of the worth of lives. It is the modern version of the judgment-day function. Its still, small voice is now murmuring in the ears of all who can hear it and is asking each, What are you doing to help the world, you, here and now, to make those you come in contact with better and happier? Jenner, Howard, Florence Nightingale, Tolstoi, Kropotkin, Jacob Riis, Anthony Comstock, Pasteur, Dr. Miele of Ghent, Father Damien, Roosevelt, Governor Hughes, Folk, Heney of San Francisco, Colonel Waring, who lost his life cleaning up Santiago, Clara Barton, the soldiers and others who have allowed themselves to be inoculated with yellow-fever germs to find its cure are all heroes of civil service. Contemporary life is full of inspiring instances, such as the civic clean-up of Harrisburg by Mr. McFarland. Such heroes are sometimes found in literature, like *Stockmann* in Ibsen's " An Enemy of the People." Some think that even *Beowulf* is only the mythic picture of a man who drained a great marsh and overcame malaria. Again, there is inspiration in some of the greatest of modern engineering works which have immensely improved conditions of life, like the Suez and Panama canals, the Assuam Dam in Egypt, the Holland Dikes, some of the great tunnels, the irrigation dams and canals and bridges. These really have more moral uplift to them than has many a legend or fable.

The beginning of civic education is the betterment of the group spirit. Children are intensely gregarious and school and grade classification intensifies this instinct. The gang without a mentor means the raw material of civic virtue running to waste, which may lapse to the palling, standing-in spirit of criminals and the false honor among thieves. Hence, the basis of all education for citizenship is to rectify and broaden the group spirit and prevent its degeneration, to which the pathology of the crowd shows it is so prone. The gang spirit matures in the henchman who blindly and servilely follows the boss, and its morality is that of the mob. The boy gangs, of which there are scores in every large city, are the breeders of about every form of political corruption which makes for the disintegration of the social order. They are the pest centers of our American life. They are rife in the uncontrolled juvenile life of respectable suburbs where male influence is at a minimum, as well as in the slums. Association countenances and reënforces every evil as well as every good tendency. No civic text or reader touches the scores of secret or open societies, clubs, fraternities that are listed in every directory, Eagles, Knights of Columbus, Odd Fellows, Masons, Knights of Pythias, and the rest, to one or more of which about every adult male belongs. From the smallest and most local of these to the larger clubs, trades unions, syndicates, even up to the invisible empire which makes loans to governments, holds most of the national debt of many countries in Europe, controls a dominant portion of the press, sometimes crowns and uncrowns monarchs and makes peace or war—all these show the social nature of man. Some of these are selfishness writ large for two or for the few, and are enemies of the common weal, while others better are increasingly the means of uplift or true mutuality. Thus, it is not enough to teach how we are governed, politically important as this is. The school and college fraternities and teams should be fore-schools of citizenship, cultivating its basal virtues. Educators often complain that every good adult cause attempts to enter the school, but it should do so in some way or degree, for this tendency is only the communal expression of the parental instinct to induct the young into the best things, but here due order and gradation should be observed. The school itself is a community and the first duties are those to fellow pupils and to homes. This is the good in all the school self-government experiments, for even selfishness for two, or the smaller groups, mitigates the intense natural egoism of childhood. Children should be given some inkling betimes of all the organized efforts and associations for their benefit: the school improvement societies, the Civic Institute for Child Life,[1] should know something of the moral prophylaxis movement, of village improvement of streets, parks, playgrounds, of school nurses, medical inspection, Memorial—Patriots—Arbor—Lincoln Day, Washington's Birthday, Thanksgiving, Fourth of July, Christmas, and the rest. These should be studied by educators with a view to the ever fuller realization of all their possibilities. Hoodlumism should be set forth and kept down;[1] social, civic, and charitable institutions should be described and visited if possible, as is indeed now done in some places, even with the upper grammar grades. Such local knowledge brings local pride and promotes home staying, as opposed to migratory propensities. Municipal leagues, social service movements, junior republics, school and garden cities, should be at least told of in the school, and boys especially be sympathetically taught how their own municipality is governed, and no longer leave school, as the vast majority do now leave even high school, in almost utter ignorance of the above things, for the life of the community does not go through the school.

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[1] See Ped. Sem., Dec., 1910. Vol. 17, No. 4, pp. 545-547.

Teaching patriotism to young children is a large proposition. The flag, its very presence, its stories, songs, salutes, make a good beginning. The work of the peace societies should have some place, but it must not be forgotten that war, too, has its heroes without which moral instruction would be a pallid and impoverished thing, and that the liability to conscription and even military service in lands where large standing armies are maintained is itself a potent, moralizing, and patriotic agency. Perhaps stress upon the machinery of government, especially that of the nation, should be mainly reserved for the high school, but here, at the very latest, this instruction should be stressed and, if possible, be made the work of the best teacher, perhaps the specialty of the principal. Here, too, the work of good government clubs, civic leagues and their national federation, the ethics of taxation, the obligation and responsibilities of wealth, the duties of the ballot, something about public works, epoch-making bills, arbitration, conservation, public lands, administration, economy, basal principles of thrift, personal, domestic, city and national, should be emphasized. Indeed, these things should now be taught with almost religious, if not pentecostal, fervor.

Our schools were established to give an intelligent basis to government of, by, and for the people, and in civics we are restoring the school to this prime original function, the need of which has greatly increased by reason of the growing complexity of governmental machinery. Owing to the progressive educational neglect of these fields in recent decades and to the great influx of foreigners who needed to be inducted into the very elements of democracy, the chasm made by this increasing political ignorance, on the one hand, and the increased intricacy of methods and the vast multiplication of problems and agencies, on the other, we have passed through a period of miscarriage that will soon be regarded as tragic and pathetic. The old basis of intelligent, independent, patriotic, rural yeomanry of the post-constitutional days has gone forever or become an element of dwindling significance, and in its place the average voter is urban, unenlightened, thinks, feels, and acts in squads and at the dictation of interested leaders, who often acquire despotic power, animated by the hope of gain, while they and legislators are often coerced by the public-be-damned private interests, trusts, etc. The new socialization seeks to put an end to all this by teaching young children sound and loyal sentiments and inducting older ones into the technique of public administration. The civic movement would make every school and university a solidarity of mutual hepfulness, would arouse and capture the very greatest power for good that exists in the world which is the enthusiasm of youth. Civics is a virile subject and appeals most to boys and should always be taught by public-spirited men. It should reënlist the interests of boys at the age when most now leave school, in continuing it. The struggle of our age is between selfish and corporate greed and true public spirit, and it is both craven and lazy to say that themes of burning present zest should be excluded from the school because their lessons cannot be given without partisanship. Both sides of every question of public interest might be stated impartially, and it has sometimes been practical to have representatives of both sides present their views to high-school pupils. It is a weak and easy way to taboo such topics, and the school surely cannot be a place where nothing of vital present concern is taught. Citizenship is the only profession which all young men should be trained for. Teachers have frequently of late entered the arena of politics for their own interests. Why should they not do so for those of their pupils? Because we took the easy way of laicizing the school when sectarian discussions on theological points were rife, we should not make the same mistake now that economic, social, and political interests occupy the center of the stage. Here, then, we have the supreme opportunity for revirilizing the schools and relieving them from their present excessive effeminization. I do not suppose it is practical to so enthuse young men that they may be led to enlist for a term of years in the peace army that is engaged upon our great public works with the same spirit of patriotism that in great national crises prompts young men to enlist for war, and yet we have even now here and there students of sociology who adventure for a season as tramps, sail before the mast, live in slums as slum denizens do, hire themselves out to clean city streets and dig and shovel in railroads, college athletes who work out summer times as hired hands on farms. Occasionally even college girls turn waitresses, waiting maids, enter factories, become hotel bedmakers, in order to know something of how the other half lives.

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[1] See my Adolescence, Chap. XV. Social Instincts and Institutions, pp. 363-449.

Would the state, which supports the high school, ask too much if it demanded that every high-school graduate know something of all, if not all of any one, of such topics as the referendum, the recall of officials, the primaries, the caucus, and direct nominations; court procedure, delays, juries; free legal as well as medical and religious advice for the poor; public utilities and movements; the tariff, free food and raw material; compulsion by warrants of all able-bodied citizens to go to the polls and vote; the infamy of getting everything possible from and giving nothing to the community; the expenses of elections; gerrymandering versus laying political districts by engineers; government by commission; taxation, its forms, land, direct income, etc.; city, home rule; parcels post, currency and banking, trusts, stocks and bonds; public health, hygiene and its legislation, diseases; child labor; habeas corpus; a bureau for the purchase of state supplies; the creation of judges; garbage; pawn, junk, and rag shops; sweating; bill boards and disfigurement by posters and ads.; immigration and its regulation; property and contracts; the problems of transportation; the smoke and noise nuisances; municipal research for police systems; fire, accident, life, and other forms of insurance. Here we have a list of subjects which might be indefinitely extended. Jewish and Irish boys particularly take to such themes with great avidity and intelligence, while ignorance of them makes voting hardly better than illiteracy itself. Man is a political animal, and, as Aristotle said, politics at its best is the noblest of all themes of human contemplation. So far as suffrage is uninformed, we are not in fact a democracy, but an oligarchy at the mercy of the bosses who do know these things. Ideally perfect citizenship may involve as many qualifications as a university degree, but all should be started in the school. Are high schools giving the hundreds of thousands of boys under their charge, whose education will go no farther, a square deal if they contribute nothing to make them better citizens and do not touch this highest domain of applied morality? This time of civic awakening constitutes a pedagogic opportunity too valuable to be lost. There is a new social consciousness abroad, the sentiment of which is each for all and all for each. Many cities in this country have left or are fast leaving the old graft methods of corruption when the municipal officers strove only to fill their pockets, and the downfall of this régime has been marked, from the Boss Tweed day down to our own, by many a battle in many cities. Next came the business ideal, which was to show the most work accomplished for the least money. Candidates in their campaigns and mayors in reviewing their work dwelt upon the reduction of the tax rate and economies, and the ideal of a great corporation managed most effectively on business versus party principles supervened. But now a third ideal is emerging which is higher yet, viz., that of brotherhood. A social administration is better than a business one; its ideals are higher and its work, when it is perfected, will be better.

The time will come when every unmarried young lady of leisure will be ashamed to devote all her time to the vanities of fashionable society and selfish amusement, but will feel it incumbent upon her to do something for others, to perhaps be a big sister to some one or more younger girls who need her ministrations, and every young man who can do so will become a veritable big brother to at least one young boy whom he can help; when every teacher in the grades who can possibly do so will seek out the homes of at least a few of the most needy children under her charge and be an adviser, helper, and friend to the families to whom she can do most good, seeking always to get and keep in touch with every available agency that can help in the various emergencies of life, and will no longer feel that her whole duty ends with instruction, but will seek to be a veritable shepherd to her flock. Cities are now really getting souls, and they all have and need periodic housecleaning, such as Mrs. Crane did for Kalamazoo and J. H. McFarland for Harrisburg. Perhaps we shall have a general housecleaning day every spring, a savings collector who goes about and gathers the nickels of children for stamp savings or other forms of deposit. Women's clubs, that now have in this country over 700,000 members, will interest themselves in such topics as front door and window gardening among the poor, better housing, etc. We shall find ever new combinations between science and citizenship, as Reclus in his social geography would have established. We shall have many a 1915 or 1920 movement and shall multiply social settlements. Good citizens would be ashamed were there city slums, filthy backyards, cesspools or plague spots, physical or moral, and will feel it a function not only of boards of trade but of all business leaders and other concerns to improve the civic conditions. The leaders of industry and commercial organizations are realizing that if a city is to be great in business, it must be great civically, as Pittsburg has realized in the no less than fourteen new agencies that have been established there to this end. This is the new standpoint of the citizen of the twentieth century, and intelligent public opinion and expert service must carry on the work.

Many civic questions should be specifically put up to the conscience of pupils, such as: Is it right to smuggle by means of bills made out for half what foreign goods cost, or by evasions of other kinds and false valuations? Is it right for adults to do this and afterwards boast of having cheated the customs officers and the Government by escaping legal duties? Or are these laws the legitimate prey of all who have the wit to violate them without detection? Again, what is the ethics of violating the postal laws, e. g., by sending gloves, presents, manuscript, etc., in newspapers, or sending first- as second-class and second- as third-class material to save postage? Are such licensed acts of lawbreaking good citizenship? What about the current frauds in classifying and marketing staple products like butter, eggs, meat, also adulterations of food, drugs, false weights, measures, violations of game laws and seasons, hunting and shooting harmless animals for sport? Should automobiles evade the law of the road, and what should the code of the gentleman say about all these new problems of frightening horses, endangering pedestrians, and joy-riding generally? What about taking children with contagious diseases out or letting them go to school, church, or on the street before they are sufficiently recovered not to spread the infection? Let their conscience be touched a little on such problems as evading legal taxation by refusing to disclose all their property or by other very current tricks by which well-to-do people shirk the burden of taxation. Let their souls be at least inoculated with the query concerning the abuse of bankruptcy acts and the duties of insolvent individuals and firms to their creditors. Then bring out the " clean-up problems " to children by letting them consider, in the cool, impartial schoolroom attitude, the propriety of dropping paper on the streets, in the yard, cleaning up after picnics, marking or otherwise disfiguring school- and out-houses, injuring property, breaking glass, and even hazing and cruel initiations and Halloween and April fool pranks that really injure life or health. Other problems are the pollution of springs and allowing sewage or other waste drain matter to flow into rivers where it will endanger the health of those who dwell lower down the stream, cutting off the timber over extensive areas so clean that no new growth could possibly ever take its place and where the soil is sure to wash away, what to do with found articles. Conscience, current custom, and law often constitute three very different standards hard to harmonize on such problems unless it is profoundly realized that the public welfare is the supreme criterion.

We cannot expect boys to read von Holtz or Bryce, nor teach them very much about the open door, special franchises, factory and labor legislation, housing, relations between health and the mosquito or house fly, clean milk, household art, the conservation of scenery, historic monuments, architectural uplift given by the white cities of recent international expositions, the effects of great bridges, elevated tracks, subways, tunnels, and union terminals, grade crossings, better grouping of public buildings, public monuments, and commemorations, making schools into social centers, prevention of too high and unsightly buildings, Sunday openings, etc., but if we understand how most of the evils of our day come, not because the people do not mean well and wish the best, but because they are densely ignorant and do not know it; if we realize that we live in a civic renaissance when a new humanism and a wider philanthropy are abroad; if we recognize how flexible men and women must now be up to the very end of their lives in order to keep up with the times; if we would educate the whole boy; then we must not allow him to leave the high school uninoculated with at least an attenuated culture of such things, many if not most of them, and must give him a little of the orientation that hints can often implant forever at this plastic stage. Teachers could cull from popular magazines a series of inspiring stories of the many cities which in recent years have arisen in their might to sweep away abuses, to clean up morally and physically, could tell of some of the magnificent concerted efforts which some large municipalities have made to control and direct their own further development along well-considered and unitary plans that look to architectural, transportational, æsthetic and ethical harmony by the rallying together of good men when legally intrenched abuses became too great to be borne, or new agencies had to be created, or somnolent institutions had to be given a new soul. Is there any kind of knowledge that is so sure to work good, even when administered in the smallest, most homeopathic doses to the narrowest, crudest minds, or any which is surer to bless him who gives quite as much as him who receives it?

The school is the training ship for the ship of state and is freighted, like it, with all our hopes and fears, and on the fate of one we hang no less breathlessly than on the other. It is chartered by the people and plies between the river of childhood and the open sea of adult life. It should not be idly moored in shallow waters in some sheltered nook, but hoist anchor, spread sail, and boldly venture out where the tide and current buffet each other. It should teach not mere ship discipline, but the art and craft of sailing, and this it cannot do without braving at least some of the slighter dangers of navigation in open seas. If the timorous counsels of safeness constitute our only wisdom, then every topic on which there are vital differences of opinion must be tabooed, and the school dies. To change the trope once more, the life of the country is the very placenta of the school, and if the umbilicus that joins it to the embryo citizen is cut, abortion follows. Thus, civics in the above large sense must be the new religion of the secular schools. The old religion gave but the motive that created and for centuries dominated education through all its grades. We need not say, and do not believe, that this old motivation has spent its force, but to-day it has little or no influence upon public education and its absence has left the system more or less motiveless and soulless. In the new civics, however, we have the best substitute, a philanthropic social religion. In honoring and serving men as the race long did God, and in living for and in the present as we long did for a future life, we seem to be at the dawn of a new dispensation, imminent rather than transcendent, and perhaps already hardly less full of promise and potency than was the old.

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